

DEPARTMENT OF MINERAL RESOURCES

Appeal instituted by:

EARTHLIFE AFRICA JOHANNESBURG	FIRST APPELLANT
BIRDLIFE SOUTH AFRICA	SECOND APPELLANT
MINING AND ENVIRONMENTAL JUSTICE NETWORK OF SOUTH AFRICA	THIRD APPELLANT
ENDANGERED WILDLIFE TRUST	FOURTH APPELLANT
FEDERATION FOR A SUSTAINABLE ENVIRONMENT	FIFTH APPELLANT
GROUNDWORK	SIXTH APPELLANT
ASSOCIATION FOR WATER AND RURAL DEVELOPMENT	SEVENTH APPELLANT
BENCH MARKS FOUNDATION	EIGHTH APPELLANT

Directed to:

DIRECTOR-GENERAL (ACTING), DEPARTMENT OF MINERAL RESOURCES

**APPELLANTS' STATEMENT OF GROUNDS OF APPEAL IN TERMS OF SECTION 96(1)(a) OF THE
MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002, AND REGULATION 74
OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT REGULATIONS, 2004**

INTRODUCTION

1. This is an appeal against the approval of the environmental management programme ('EMPR') of Atha-Africa Ventures (Pty) Ltd ('Atha') in respect of the

Yzermyn underground coal mine situated within the Magisterial District of Wakkerstroom by the Mpumalanga Regional Manager of the Department of Mineral Resources ('Regional Manager') ('DMR') on 28 June 2016. Atha is a subsidiary of the Atha Group, India which is a prominent stakeholder in the Indian mining industry whose business includes coal imports.

2. The first appellant is Earthlife Africa Johannesburg, a largely volunteer-driven organisation founded in 1988 to mobilise civil society around environmental issues in relation to people.
3. The second appellant is Birdlife South Africa, a non-governmental, non-profit conservation organisation whose main concern is the conservation of bird species.
4. The third appellant is the Mining and Environmental Justice Community Network of South Africa, a network of communities, community-based organisations and community members whose environmental and human rights are affected, directly or indirectly, by mining and mining-related activities. Its objectives include the promotion and defence of environmental and human rights of communities affected by mining.
5. The fourth appellant is the Endangered Wildlife Trust, a non-profit organisation whose strategies include the identification of human-induced threats and affected species in order to halt or reverse species decline; and the development of innovative, economically viable alternatives to address harmful impacts to the benefit of people and biodiversity.
6. The fifth appellant is Federation for a Sustainable Environment, a non-profit organisation whose aim is to ensure that mining in South Africa remains

environmentally sound, particularly in the context of South Africa's scarce water resources.

7. The sixth appellant is groundWork, a non-profit environmental justice organisation which works primarily in Southern Africa in the areas of climate and energy justice, coal, environmental health, global green and healthy hospitals, and waste.
8. The seventh appellant is the Association for Water and Rural Development (AWARD), a non-profit organisation which specialises in participatory, research-based project implementation aimed at addressing issues of sustainability, inequity, and poverty by building natural-resource management competence and supporting sustainable water-based livelihoods.
9. The eighth appellant is Bench Marks Foundation a faith-based non-profit organisation which works in the area of corporate social responsibility and monitors corporate performance against an international measuring instrument, the Principles for Global Corporate Responsibility: Benchmarks for Measuring Business Performance.
10. Each of the appellants has juristic personality. They comprise both registered non-profit conservation organisations and communities affected by mining in South Africa. Their objectives include environmental conservation but also advancing the rights of those who are most vulnerable to the effects of environmental degradation. Many of them have the express objective of protecting not only the environment, but the people who depend on it for their livelihoods.

11. The appellants' grounds of appeal are the following:
- 11.1. The EMPR, and Environmental Impact Assessment Report ('EIAR') on which it is based, do not (as they were required to in terms of section 39(3)(d)(i) and (ii) of the Mineral and Petroleum Resources Development Act, 2002 ('MPRDA') and regulations 50(e) and 51(b)(i) of Mineral and Petroleum Resources Development Regulations ('MPRD Regulations')) contain appropriate mitigation measures in respect of the management of impacts on water resources and biodiversity (**first ground of appeal**).
- 11.2. The EMPR, and EIAR on which it is based, do not (as they were required to in terms of regulations 50(a) and (c) of the MPRD Regulations and sections 2(4)(b) and 2(4)(r) of the National Environmental Management Act, 1998 ('NEMA'), read with section 37(1)(a) of the MPRDA) contain a proper integrated or cumulative assessment of the adverse impacts of the project on all aspects of the environment and all people in the environment or proper consideration of the critical, sensitive and vulnerable ecosystems impacted by the proposed mine, and instead focus inappropriately on the direct 'footprint' impacts of the project (**second ground of appeal**).
- 11.3. The EMPR, and EIAR on which it is based, do not (as they were required to in terms of section 39(3)(b)(ii) of the MPRDA, regulation 50(c) of the MPRD Regulations and sections 2(4)(a)(viii), 2(4)(c) and 2(4)(i) of NEMA, read with section 37(1)(a) of the MPRDA) contain a proper and objective assessment of the negative impacts of the project on people's socio-economic conditions and environmental rights, and fail to identify that the adverse impacts of the project are likely to be distributed as to unfairly discriminate

against poor rural communities in the area who are dependent on the existing natural resources for a livelihood (**third ground of appeal**).

11.4. The EMPR was approved in the face of material concerns on the part of other State departments which administer law relating to matters affecting the environment, including the Department of Environmental Affairs ('the DEA') and the Department of Water Affairs ('DWA') as it then was, thereby undermining the constitutional principles of co-operative governance and integrated decision-making, and infringing sections 39(4)(b)(ii) and 40(1) of the MPRDA (**fourth ground of appeal**).

11.5. The Regional Manager failed to take into account relevant considerations in that the EIAR (on which the EMPR is based) does not (as it was required to in terms of regulation 50(g) of the MPRD Regulations) accurately summarise findings and recommendations contained in the specialist reports (**fifth ground of appeal**).

PART A: THE YZERMYN UNDERGROUND COAL MINE IN OUTLINE

12. On 28 June 2016 the Regional Manager approved the EMPR of Atha in respect of the Yzermyn underground coal mine in terms of section 39(4) of the MPRDA. The EMPR is for a proposed underground coal mine on the farms Kromhoek 93 HT, Goedgevonden 95 HT, Yzermyn 96 HT: Portion 1 and Zoetfontein 94 HT.¹

13. The extent of the underground workings and surface infrastructure is depicted in the '*Biodiversity Baseline & Impact Assessment Report*' by Natural Scientific Services CC dated September 2013 (which is contained in Appendix C to the ESIA/ESMP

¹ Final Environmental and Social Impact Assessment Report and Environmental Programme (version 2), submitted – March 2014 ('the Approved Report') p 1

substantiating documentation) ('the NSS biodiversity report')². A copy of the relevant figure is, for ease of reference, attached marked 'A'. As appears from the figure, the area to be mined is divided into two parts – that which is to be mined in the first 15 years and that which may be mined after that³.

14. The mining method which will be employed is the conventional bord and pillar method in terms of which large areas of coal are removed leaving 'pillars' of coal in place to hold up the roof.
15. The mine has the following key features:
 - 15.1. The surface and underground areas of the mine coincide with several wetlands;
 - 15.2. The underground area to be mined in the first fifteen years (which is referred to in what follows as 'the underground area') falls within the Mabola Protected Environment which was declared as such on 22 January 2014 in terms of the National Environmental Management: Protected Areas Act, 2003⁴.
 - 15.3. The underground and surface areas of the mine will be located within the Wakkerstroom/Luneberg Grasslands which is classified as 'Endangered' in terms of the National Environmental Management: Biodiversity Act, 2004⁵.

² NSS (Appendix C) p 4

³ Atha will be required to undertake a separate environmental and social impact assessment process prior to mining the second part – see the Approved Report p 1

⁴ Approved Report p 43. Notice No. 20, *Mpumalanga Provincial Gazette* No. 2251, dated 22 January 2014. The project area also borders the Kwamandhlangampisi Protected Environment to the east

⁵ NSS (Appendix C) pp 204, 208

- 15.4. The underground area lies within 1 km of a DEA designated Freshwater Ecosystem Priority Area ('FEPA')⁶;
- 15.5. The entire surface and underground areas of the mine fall within an area identified by the DEA in the Mining and Biodiversity Guideline, 2013 as having the '*Highest Importance for Biodiversity*' and as being at the '*Highest Risk*' from mining⁷; and
- 15.6. The surface infrastructure of the mine falls largely within an area designated in the Mpumalanga Biodiversity Sector Plan 2013 ('the MBSP') as being an '*Optimal Critical Biodiversity Area*', while the underground workings of the mine fall largely within an area designated in the MBSP as being an '*Irreplaceable Critical Biodiversity Area*'⁸.
16. As appears from Atha's 'Final Environmental and Social Impact Assessment Report and Environmental Programme (version 2)'⁹ ('the Approved Report'), the cover page of which is attached marked 'B', most of the coal produced by the mine will be exported¹⁰.

⁶ NSS (Appendix C) p 209, 210. This refers to a system of classification developed by several organisations working together with organs of state including the DEA and DWA. The NFEPA project resulted in several guidelines one of which is that mining in any form should not be permitted in wetland FEPAs or within 1 km of a wetland/riverine FEPA buffer. The significance of classification of an area as an FEPA is that it acquires the status of an ecosystem which the national sphere of government has recognised formally warrants special conservation (see for instance Notice No. 83 in Government Gazette 37302 dated 7 February 2014)

⁷ NSS (Appendix C) 211-212. The DEA Mining and Biodiversity Guideline, 2013 is discussed in greater detail below

⁸ NSS (Appendix C) 215. Expanded upon below

⁹ Submitted – March 2014

¹⁰ Approved Report p 4

17. Whereas the mine would, according to Atha, generate 576 employment opportunities when fully operational, there is no guarantee contained anywhere in the EIAR or EMPR that these will be sourced locally¹¹.
18. As regards employment in the construction phase, there would be approximately 70 employment opportunities in total, with approximately 60 being skilled (operators) and 10 management (supervisory) opportunities. The socio-economic specialist study reports that:
- '[s]killed labour is likely to be sourced from outside the [Area of Direct Influence], either regionally or nationally. In addition, management level staff are likely to be sourced in India (Atha's current mining operations), and brought into manage local operations and transfer skills to local employees/trainees on an on-going basis'*¹².
19. The socio-economic specialist study says further that *'[a]lthough there may be a small number of additional unskilled opportunities (e.g. security, community liaisons, general labourers and cleaners) that could arise, there is unlikely to be significant*

¹¹ The Approved Report states only that *'[i]t is proposed that semi-skilled and unskilled labour will be obtained from the Gert Sibande District Municipality, specifically from the Pixley ka Seme Local Municipality and Khondo Local Municipality, subject to the recommendations contained within the Social and Labour Plan (SLP). It has been conveyed that where practicable, employment will be sourced locally with the intent to develop local skills required by the time. However, the more highly skilled personnel such as Artisans, Foremen, Shift and Mine Overseers and Mining and Mechanical /Electrical Engineers will be more difficult to source, and may be sourced on a National level. Piet Retief is not situated in a recognized mining area and is a considerable distance away from large city centres or traditional mining areas where the required skills will be able to be sourced.'* (p 101). Despite the reference to a Social and Labour Plan ('SLP'), there is none contained in the Final Report. Pages 347 and 348 purport to contain an overview of the expected investment of Atha through the implementation of the SLP but the SLP itself is missing. There are only some broadly stated objectives (which also refer to the SLP) (p 513), and certain mitigation measures proposed in the EMPR which similarly contain no guarantees that the mine will create employment for local communities (pp 497-498)

¹² Contained in Appendix C: Socio-economic specialist study by WSP Environmental (Pty) Ltd dated 19 August 2013 ('the socio-economic study (Appendix C)') p 29. This information does not appear to be contained in the body of the Approved Report itself – one has to go to the specialist report to find it

*opportunities for the local population to be employed during the construction phase, and the opportunities are likely to be temporary*¹³.

20. Whereas the socio-economic specialist study recommends that skills development and training be implemented by Atha prior to the construction phase to ensure that individuals in local communities may qualify for employment¹⁴, that is also not provided for anywhere in the Approved Report, including the EMPR¹⁵. This is a striking omission given that the socio-economic study reports, even in relation to the operational phase, that *'[d]ue to the limited numbers of unskilled, semi-skilled and skilled employment opportunities, the proposed mine will offer little or no economic benefit for the local area without skills development'*¹⁶.
21. By way of contrast, the Approved Report states that eco-tourism contributes materially to job-creation in the area and that if mitigation measures are not implemented, environmental impacts resulting from the proposed mine may degrade surrounding surface and groundwater sources resulting in a reduction of biodiversity in the area and a decline in eco-tourism¹⁷.
22. The target area also supports agricultural employment opportunities. The farm on which the surface infrastructure will be established is itself currently used for the commercial grazing of livestock (sheep and cattle). Several subsistence farmers have

¹³ The lack of creation of employment opportunities during the construction phase is passed over in the Approved Report itself

¹⁴ The socio-economic study (Appendix C) pp 29-30

¹⁵ The closest that Atha comes to this is to say in the EMPR that in relation to *'non-core activities related to the construction phase of the project'*, which it will outsource to local service providers *'where the skills exist'*, Atha *'will ensure that contractors have a "skills development" policy and that the policy is adequately implemented'* (Approved Report p 498). In other words, Atha will ensure that in relation to *'non-core'* activities performed by locally sourced service providers (to the extent that Atha uses such service providers – because there may not be any with the requisite skills), these service providers have a skills development policy

¹⁶ The socio-economic study (Appendix C) pp 29-30

¹⁷ Approved Report p 71 (see also the socio-economic study (Appendix C) p 20)

also made their home on the proposed mining site, which has good to excellent grazing capacity¹⁸.

23. There are approximately eight homesteads situated on the proposed mining site which are occupied by low-income families with between eight and thirty people living in each homestead. The households generally rely on limited income from a single family member who works on the host farm, as well as on social grants. This community *'is vulnerable from a livelihood perspective, as they do not have access to finances or other resources should their current income come to an end (i.e. farm work) or access to natural resources, such as water and grazing land, be prevented'*¹⁹.
24. The Approved Report does not assess with any precision what the likelihood of the loss of this livelihood is, or what the likelihood of loss of agricultural income and resources in the larger area may be should the mine have any adverse impact on the water sources used by commercial and subsistence farmers in the area.
25. The Approved Report records that water is sourced by farmers in the area from springs (referred to locally as 'fontaine') which are used for both domestic and livestock watering purposes²⁰. There are twenty-three such springs in the project area. The springs are also a water source for the wetlands²¹. According to the Approved Report, a lowering of groundwater levels will have a negative impact on, among other things, the springs within the 'cone of depression' of the mine (which is a term used to describe an area of impact of the mine on groundwater levels

¹⁸ Approved Report pp 64-65 and 72

¹⁹ The socio-economic study (Appendix C) pp 17-18; Approved Report p 194

²⁰ Approved Report p 134-135

²¹ Approved Report p 152

described further below). A drawdown of more than 5m is expected to reduce or dry up springs²². Moreover, possible 'decant' points (the points at which contaminated water from the mine void is likely to be release onto the surface post mine closure) are, apart from anything else, potentially connected to the springs²³.

PART B: CHRONOLOGY OF KEY EVENTS

26. Atha was granted a mining right in terms of section 23(1) of the MPRDA in respect of the mine by the Director-General of the DMR ('DG') on 19 September 2014, subject to various conditions pertaining to the environment. The granting letter dated 19 September 2014 is attached marked 'C'.
27. The conditions pertaining to the environment which were imposed by the DG are contained in paragraph 6 of the letter and read as follows:-

- '(i) The granting shall exclude any areas that constitute wetlands.*
- (ii) Surface mining or related activity, as well as erection/installation of surface infrastructure shall be prohibited from taking place in any area that constitute wetlands or is deemed to be a sensitive environment.*
- (iii) The applicant shall formulate proper mitigation measures relative to the area in consultation with other stakeholders/authorities that administer matters affecting the environment at National and Provincial (Mpumalanga) level.*

²² Approved Report p 277

²³ Approved Report p 280

(iv) a proper plan/map shall be submitted with a clear depiction of such exclusions as indicated on (i) above.

NB: The abovementioned conditions shall be fulfilled to the satisfaction of the Department before the right can be considered further for notarial execution.'

28. Shortly after receiving notification of the grant of the mining right, Atha submitted a request to the DMR on 19 November 2014 for two of the conditions pertaining to the environment to be amended on the basis that they were impossible to abide by, and posed a significant threat to the entire mining project. Atha's letter is attached marked 'D'.
29. In a letter dated 14 April 2015, attached marked 'E', the Minister of Mineral Resources ('Minerals Minister') notified Atha that in terms of section 103(4)(b) of the MPRDA he was thereby amending the decision made by the DG on 19 September 2014 to grant a mining right to Atha. The Minerals Minister removed the environmental conditions that had been imposed by the DG.
30. Atha submitted its 'Final Environmental and Social Impact Assessment Report' to the DMR on 18 October 2013 and to the DEA on 9 January 2014. This version of the ESIA/ESMP is referred to in this appeal as 'the Original Report'.
31. The Original Report included several specialist studies which either concluded that the project should not proceed or which raised areas of serious concern.
32. One of these was the NSS biodiversity report first referred to in paragraph 13 above. The NSS biodiversity report was commissioned by WSP Environmental (Pty) Ltd ('WSP'). WSP was at that stage the Environmental Assessment Practitioner. At

some stage after this WSP was replaced by EcoPartners CC ('EcoPartners') although the reason for that does not appear from anywhere in the ESIA/ESMP.

33. The NSS biodiversity report contains the following findings, among others:
- 33.1. Numerous headwater and mountain streams flow from the study area into rivers that drain into the Assegai river²⁴;
 - 33.2. The mine is situated in Rutherford & Westfall's (1994) Grassland Biome which has extremely high biodiversity, second only to the Fynbos Biome²⁵;
 - 33.3. Six floral species at a high risk of extinction in the wild were found by NSS in the study area, and 30 species which are listed as Protected Species under the Mpumalanga Conservation Act, 1998²⁶ have been found during surveys of the mining area;
 - 33.4. Twenty one Conservation Important ('CI') mammals have been recorded previously in the proposed mining area, and eight CI mammal species, including one Endangered and five Near Threatened species, were found there by NSS²⁷;
 - 33.5. Eighteen CI bird species have been recorded in or near the proposed mining area, and NSS²⁸ observed five CI species during surveys related to the project²⁹;

²⁴ NSS (Appendix C) p 22

²⁵ NSS (Appendix C) p 22

²⁶ NSS (Appendix C) pp 53-58 and 64-65

²⁷ NSS (Appendix C) pp 95-99

²⁸ Together with Delta Environmental Consultants

²⁹ NSS (Appendix HC1) pp 100-103

- 33.6. Several globally, nationally or provincially Near Threatened reptiles and frogs are also likely to occur at the site³⁰;
- 33.7. There are three types of inland wetland in the study area, namely rivers, channeled valley bottom systems (which is a valley-bottom wetland with a river channel running through it) and seeps (which are wetland areas on sloping land dominated by unidirectional movement of water³¹) – a visual depiction of the wetlands is, for ease of reference, attached marked 'F'³²;
- 33.8. The wetlands are also fed from springs and shallow groundwater from higher topography to the south of the surface infrastructure area³³;
- 33.9. There are several springs within the proposed underground mining area and two more just beyond it³⁴;
- 33.10. The existing impacts on the wetlands caused by, among other things, stands of alien invasive species and cattle tracks is very limited and minor in extent³⁵;
- 33.11. The wetlands have a 'VERY HIGH' Ecological Importance and Sensitivity ('EIS') including because of the Mabola Protected Environment, the current integrity of the site and the numerous CI species identified³⁶;

³⁰ NSS (Appendix C) pp 104-106

³¹ NSS (Appendix C) p 186

³² NSS (Appendix C) p 195. The image is based on a previous surface infrastructure layout and still shows the position of a discard area. Although the surface area infrastructure has since been changed, and there will be no discard dump, the image is still useful because of the degree of overlap between the former and current surface layouts

³³ NSS (Appendix C) p 186

³⁴ See figure 3-8 attached

³⁵ NSS (Appendix C) pp 196-199

³⁶ NSS (Appendix C) p 199

- 33.12. Underground mining will take place within 1 km of an identified NFEPA (first referred to in 15.4 above) – in this regard the NSS records *'[t]he greatest concern ...is the potential impact of the mine on the water resources as a result of underground water reduction due to de-watering activities and groundwater contamination due to sulphate seepage from the mine workings and discard facility'* and *'[B]oth the cone of depression and the groundwater contamination plume extend to the wetland FEPA's in the near vicinity'*³⁷;
- 33.13. The entire surface and underground workings of the mine fall within an area which has been identified by the DEA in the Mining and Biodiversity Guideline, 2013 (first referred to in paragraph 15.5 above) as having the *'Highest Importance for Biodiversity'* and as being at the *'Highest Risk'* from mining³⁸ - meaning that the area is viewed *'as necessary to ensure the protection of biodiversity, environmental sustainability, and human well-being'*³⁹;
- 33.14. The mine will fall within an Important Bird Area ('IBA') identified by BirdLife International, which is considered to be *'one of the most important IBAs in Africa and ...vital for the conservation of a number of locally- and globally-threatened bird species, as well as the conservation of other fauna and flora'*⁴⁰;

³⁷ NSS (Appendix C) p 209, 210

³⁸ The official citation of this document is the *'Department of Environmental Affairs, Department of Mineral Resources, Chamber of Mines, South African Mining and Biodiversity Forum, and South African National Biodiversity Institute. 2013. Mining and Biodiversity Guideline: Mainstreaming biodiversity into the mining sector. Pretoria.'* It is voluminous and is therefore not attached but it may be found on the DEA website

³⁹ NSS (Appendix C) pp 211-212

⁴⁰ NSS (Appendix C) p 213

- 33.15. The surface infrastructure of the mine falls largely within an area designated in the MBSP (first referred to in paragraph 15.6 above) as being an *'Optimal Critical Biodiversity Area'*⁴¹, and the underground workings fall largely within an area designated in the MBSP as being an *'Irreplaceable Critical Biodiversity Area'*⁴²;
- 33.16. All of the wetlands on the site are regarded as having Very High sensitivity – they are *'largely fed by groundwater from the perched, shallow weathered and deeper, fractured aquifers, and are, therefore, sensitive to changes in groundwater levels and water quality'*⁴³;
- 33.17. Buffer zones for wetlands are ineffectual because the loss of wetlands will be due to the decline in water input, namely the dewatering of the shallow and fractured deep aquifers (in other words, they will be affected by the underground workings of the mine)⁴⁴;
- 33.18. The project *'will impact on wetlands, fed by the shallow aquifer, within an area of approximately 5.398 ha and wetlands, fed by springs sourced in the deeper aquifer, within an area of approximately 7.977ha', '[t]he possibilities for offsets, of this extent within the same catchment, are unlikely'* and since the project is at the head of the W51A quaternary catchment of the Assegaai River and will impact on water resources downstream, *'no wetland*

⁴¹ Which means that it is *'considered critical for meeting biodiversity targets and thresholds ...which are required to ensure the persistence of species and the functioning of ecosystems'* (NSS (Appendix C) Pp 215-216)

⁴² Which means that it has an irreplaceability of less than 80% but collectively with other such areas it incorporates the most biodiversity in the smallest area and therefore provides the most cost-effective options for bio-diversity (NSS (Appendix C) 215-216)

⁴³ NSS (Appendix C) p 217, although the study notes elsewhere that the source of water for the wetlands identified within the study area and within the greater cone of depression is unknown (NSS p 231)

⁴⁴ NSS (Appendix C) p 220-221

*could be offset to the same value and ecological state...as those that would be lost*⁴⁵;

33.19. The direct loss of wetland seeps and paving of the plant area will cause *'[a] change in the water distribution and retention patterns of downstream wetlands'*⁴⁶;

33.20. The main recommended mitigation measure is to avoid all areas of Very High and High sensitivity – *'This would make the project a No Go as almost the entire undermining area is rated as having a Very High or High sensitivity'*⁴⁷;

33.21. As appears from the groundwater model (which is described below), groundwater levels in the shallow aquifer may be lowered by up to 10 m in the southern section of the underground workings of the mine where mining will be deepest, whilst the deeper aquifer will be lowered up to 55 m during years 11 to 16 of mining⁴⁸ (Visual depictions of the extent of the drawdown cones in the shallow and deep aquifers are, for ease of reference attached marked 'G' and 'H' – as can be seen from these, they will both extend for several kilometres away from the mine);

33.22. This lowering in groundwater level *'will have a negative impact on all wetlands fed by the shallow aquifer and the springs within the cone of*

⁴⁵ NSS (Appendix C) p 233

⁴⁶ NSS (Appendix C) p 240

⁴⁷ NSS (Appendix C) p 241

⁴⁸ NSS (Appendix C) p 243-245

depression. These springs are one of the main sources of water for the wetlands in the area...⁴⁹;

33.23. *The 'decrease in water input to the wetlands within the study area and surrounds, and the resultant reduction in flow, and potential drying up of wetlands will have a HIGH significance on Biodiversity as a minimum of 40% of the underground mining area and surface infrastructure footprint area constitutes wetland habitat'⁵⁰;*

33.24. *The loss or deterioration of wetlands 'will extend into the wetland FEPAs within the mine lease area and the wetland FEPAs and Wetland Clusters in the immediate surrounds'⁵¹;*

33.25. *'Approximately 42% of the vegetation communities identified within the surface infrastructure footprint and 40% within the mine lease area are moisture dependent...If the dewatering activities have a major effect on the wetland systems identified, these vegetation communities and the potential CI species found within these habitats will be affected and may change in structure in the long term'⁵²;*

33.26. *Due to the 'HIGH and long-term (if not irreversible)' status of the impact of the mine on water inputs 'in an area far exceeding the study area, the project should be a NO GO'⁵³;*

⁴⁹ NSS (Appendix C) p 243

⁵⁰ NSS (Appendix C) p 246

⁵¹ NSS (Appendix C) p 246

⁵² NSS (Appendix C) p 251

⁵³ NSS (Appendix C) p 253

- 33.27. As regards potential acid mine drainage ('AMD') once groundwater levels have recovered (20 to 50 years after mining ceases), *'AMD represents the most severe impact of coal mining on water resources...The elevated location of the mine will lead to drainage of contaminated water away from the mine. Since the ...mine will be located in the headwaters of the Assegai River...it will threaten more than one water resource and thus users ...in the lower catchment'*⁵⁴ (AMD can occur after closure of coal mines when the mine void fills with groundwater and contaminants released during the mining process pass into that water which may then 'decant' onto the surface);
- 33.28. Contamination of groundwater will impact on surface water quality downstream⁵⁵; and
- 33.29. The project *'is fatally flawed, and should be NO GO in terms of Biodiversity. This is largely because of the impact of the proposed underground mining on the supply of water to the surface water resources (due to the dewatering activities) and the potential groundwater contamination. These aspects will have a significant impact on aquatic and wetland ecosystem functioning and biodiversity in a far greater area than the underground mining area. These and other aspects of the mining project are in strong conflict with international, national and provincial legislation, policies and guidelines...Most potential impacts of the mining operation had a HIGH overall significance rating , even with mitigation'*⁵⁶.

⁵⁴ NSS (Appendix C) p 255

⁵⁵ NSS (Appendix C) p 256

⁵⁶ NSS (Appendix C) p 269

34. In short, the biodiversity specialist concluded categorically that the project should not be allowed to proceed at all.
35. It is worth noting that the authors of the NSS biodiversity report were concerned enough with the proposed mining project to take the unusual step of registering as a registered interested and affected party in order to provide further input, and the further input which NSS did provide on 27 October 2014 was in unequivocal terms. NSS said among other things (having reviewed a further groundwater assessment obtained by EcoPartners, to which we turn below) that the impact of the post closure decant of the mine alone could not justify the short-term economic gains of the mine. The letter of 27 October 2014, as it was reproduced in EcoPartners and Atha's Comment and Response Report for the ESIA/ESMP is attached marked 'I'.
36. The biodiversity specialist relied in part in reaching this conclusion on a '*Specialist Study: Geohydrology Impact Assessment*' by WSP (Adam Smith) dated 3 September 2013 (which is contained in Appendix C to the ESIA/ESMP substantiating documentation) ('the WSP groundwater assessment').
37. The WSP groundwater assessment contains the drawdown cones which were relied upon in the NSS biodiversity report (referred to in paragraph 33.21 above)⁵⁷. The WSP groundwater assessment also reported that '*long-term oxidisation of sulphide minerals exposed in the walls, roof and floor of the mine workings may lead to acid mine drainage*'. Although the assessment concluded that significant movement of contamination from the mining area is only likely to occur 30 to 50 years after mine closure, two model scenarios used in this assessment showed '*potentially*

⁵⁷ WSP groundwater assessment (Appendix C) pp 40-41

*contaminated groundwater from the discard facility flowing into the Mawandlane River and the tributary of the Assegaai River*⁵⁸.

38. As appears from the attached letter dated 4 February 2014 marked 'J', the DMR rejected the Original Report for fundamental, substantive reasons, the most important being as follows: *'This office does not support this application in its current form considering the preferred layout for the proposed infrastructure, in that the preferred layout is located within the sensitive environment. It is the view of this office that, the proposed project will result in unacceptable pollution, ecological degradation or damage to the environment, even though there are proposed mitigation measures'* (our emphasis). The DMR therefore recommended that Atha reassess the surface layout design in order to re-position the proposed infrastructure to an environment which is not sensitive and that upon the revision of the surface layout plan an environmental impact assessment of the alternative location of the layout plan should be done.
39. Amongst other aspects, the DMR also drew Atha's attention to comments from the DWA (in a letter dated 9 January 2014, attached marked 'K') which were attached, and directed Atha to address the comments and communicate the response to the DWA's Durban office. In that letter the DWA expressly stated that it did not support the proposed mining development and gave the DMR a detailed motivation for why it did not.
40. In its letter of 9 January 2014 the DWA's concerns about the draft EMPR (contained in the Original Report) included the following:

⁵⁸ WSP groundwater assessment (Appendix C) pp 19-20

- 40.1. the location of the proposed mine in known sensitive habitats and environments as well as adjacent to the KwaMandlangampisi Protected Environment, '[t]he [DWA] notes the site location with great concern';
- 40.2. the impact of the mine on critical biodiversity sites is alarming even after mitigation is considered;
- 40.3. the projected impact of the dewatering of wetlands and pans through the abstraction of water from the identified boreholes is concerning;
- 40.4. the positioning of the adit (a horizontal passage from the surface of a mine) and the discard dump in wetlands constitutes '*a risk and a fatal flaw*';
- 40.5. '*... no detailed wetland assessment was undertaken in the greater area to be impacted upon by the underground mining and associated cone of depression from the dewatering activities or groundwater contamination plume*', meaning that the precise impacts on wetlands in the mining area and those in the areas abutting the mining area have not been predicted;
- 40.6. the proposed mine will lead to a decline in water quality in the area, and is potentially prone to acid mine drainage decant after the closure of the mine;
- 40.7. at least 42% of the proposed mining area can be classified as 'wetland';
- 40.8. mining threatens the existing tourism sector in the area as well as potential growth in ecotourism in the region;
- 40.9. although the mine will create job opportunities, the majority of these job opportunities will be reserved for skilled workers from outside of the surrounding areas;

40.10. ‘... *the greatest fatal flaw of this site is situated within the National Freshwater Ecosystem Priority Area...*’ and that it is predicted that mining will lead to the dewatering of subsurface water resources and the pollution of both surface and subsurface water resources that will ‘*extend to wetland [Freshwater Ecosystem Priority Areas] in the near vicinity*’; and

40.11. ‘[a] *number of threatened, endangered and vulnerable flora and fauna had proved to be solely dependent on the existence of the wetlands that seem to be threatened by the proposed mining activity*’ and that even the ‘... [s]lightest [of] *changes in water quality and quantity are detrimental to the health of the aquatic biota*’.

41. In order to address the concerns of the DMR and the DWA, EcoPartners and Atha identified alternative surface layouts and commissioned further specialist studies⁵⁹. These specialist studies included a groundwater assessment by Delta H dated February 2014 (which is contained in Appendix C to the ESIA/ESMP substantiating documentation) (‘the February 2014 Delta H groundwater assessment’).
42. On 4 March 2014 Atha submitted a revised ESIA/ESMP to the DMR, which is referred to in this appeal as ‘the Approved Report’ (Annexure B). The Approved Report states that the need to consider alternative surface layouts was prompted by, amongst others, the location of the previous preferred surface layout and proposed discard dump on areas dominated by wetlands.⁶⁰ Nonetheless, and despite the DWA’s identification of this as a ‘*fatal flaw*’ as described in paragraph 40.4 above, the

⁵⁹ Approved report p xiv

⁶⁰ Approved report pp 53, 58

proposed location of the adit was not changed.⁶¹ Furthermore, the new location of the proposed dump was still on approximately 2.33ha of wetland.⁶²

43. On 16 May 2014 (in the attached letter marked 'L') the DEA rejected the Original Report as containing insufficient information in relation to several key aspects of concern and highlighted numerous issues which it required to be addressed in an amended ESIA/ESMP. The DEA required the following:

43.1. Confirmation as to whether an alternative layout could be proposed, which would *'allow the proposed mine to coexist within this sensitive area, given the Department's concerns with regards to biodiversity'*;

43.2. An amendment to the EIAR to include a new layout plan and an *'update [of] the specialist studies to include for the assessment of the new alternative layout plan'*;

43.3. *'[G]round-truthing'* to prove that the development does not impact on the reason for the classification of the site as *'Irreplaceable'* in the Mpumalanga Biodiversity Conservation Plan – The DEA noted that this *'may constitute a fatal flaw'*;

43.4. An assessment of the interrelatedness of impacts on ground and surface water – The DEA observed in this regard that *'the area has a high occurrence of wetlands of very high ecological importance'*;

43.5. The *'identification of ... downstream water areas, ... water users dependent on the water, and a quantification of the dewatering effect on ... economic*

⁶¹ Approved report p 53

⁶² Approved report p 61

activities downstream, including increase in droughts and floods’ - The DEA observed in this regard that the area is classified as an NFEPA ‘which means that it is critical for the sustained supply of potable water for downstream communities’ and that ‘[d]ewatering of this area at the rates proposed in the study will lead to the lowering of the water table, which is likely to have a very high negative impact on biodiversity, food production and water provisioning to areas downstream’;

- 43.6. Additional ground and surface water studies in order to adequately quantify the anticipated impacts of Acid Mine Drainage resulting from the underground workings of the mine;
- 43.7. Proper consideration of the *‘Critically Endangered and southern African endemic Rudd’s Lark’* and the fact that *‘[a]pproximately 85% of the global population of Rudd’s Lark is confined to the grasslands within a 50 km radius around Wakkerstroom’* - The DEA observed in this regard that the application falls within the Grassland Important Bird Area (‘IBA’) and that *‘[t]his IBA has been recognized by BirdLife South Africa and BirdLife International as both a national (SA 125) and global (ZA 016) IBA that is critical for the conservation of IUCN Red Data List (i.e. threatened) bird species; grassland endemic bird species and congregatory waterbirds’;*
- 43.8. Consideration of the facts that *‘[t]he study area is surrounded by protected areas to the south and east of the site, and some of the land parcels in the application are part of a declared Protected Environment’* and that a mining licence cannot be issued without the express permission of the Minister;

- 43.9. An assessment of *'all associated infrastructure required for the mine'* and a discussion of all listed activities including *'the pipelines required for the transportation of water and dangerous goods, reservoirs, and any culverts/bridges required for the access roads'*;
- 43.10. *'A geotechnical study/specialist opinion ... in order to address the issue of mine stability and the potential for subsidence'*; and
- 43.11. An assessment of *'whether the generators alone are sufficient to supply power for the Life of Mine (LOM), or whether the viability of the mine is dependent on the future approval of an alternative power source'* –the DEA noted in this regard that *'the Department does not support incremental decision making, should the viability of the mine depend upon the future approval of additional power lines or power stations'*.
44. The DEA therefore recorded expressly that it required substantially more information in order for it to be in a position to decide whether the proposed mine should be authorised.
45. EcoPartners and Atha went about obtaining further specialist reports in order to meet the requirements of the DEA. This included the revision of the February 2014 Delta H groundwater assessment to a version dated August 2014, which is attached marked **'M'** ('the August 2014 Delta H groundwater assessment').⁶³
46. In January 2015 an amended ESIA/ESMP, along with substantiating specialist reports (including those mentioned in paragraph 45 above), was submitted to the Mpumalanga Department of Agriculture, Rural Development, Land and

⁶³ This is the groundwater assessment to which NSS referred in its letter of 27 October 2014

Environmental Affairs. This version of the ESIA/ESMP is referred to in this appeal as 'the Final Report' and the cover page is attached, for your reference, marked 'N'.

47. The significant change from the Approved Report to the Final Report was the removal of the proposed discard dump and wash plant from the surface infrastructure.⁶⁴ This final surface infrastructure layout is termed the 'Best Environmental Option' in the Final Report'.⁶⁵ The underground aspects of the mining operations remained the same.
48. The Final Report does not adequately address any of the concerns raised by the DEA (see paragraph 43 above), the DMR (see paragraph 38 above) or the DWA (see paragraph 40 above).⁶⁶ This is explained in detail in the report '*Review of Environmental Impact Assessment Report & Environmental Management Programme, and Environmental Authorisation, for Yzermyn underground coal project*' dated 17 August 2016 by Susie Brownlie which is attached marked 'O' ('the Brownlie review')⁶⁷. The Brownlie review forms an integral part of this appeal.
49. The August 2014 Delta H groundwater assessment, which was one of the reports which Atha and EcoPartners obtained in an attempt to allay the DEA's concerns, and the February 2014 Delta H groundwater assessment which was one of the reports which Atha and EcoPartners obtained in an attempt to allay the DMR and DWS's concerns, substantially confirm the findings of the WSP groundwater assessment (Appendix C). More particularly the groundwater model used by Delta H produced a

⁶⁴ Final Report pp vi, 2, 79

⁶⁵ Final Report pp vi, 2, 79

⁶⁶ Brownlie para 2.2, p 11. Note that the Final Report is presented by EcoPartners and Atha as entailing the 'Best Environmental Option' for the proposed mine, and presented as a revision (improvement) of the Approved Report. Accordingly Brownlie's conclusion that the Final Report does not adequately address any of the concerns raised by the DEA, DMR and DWA implicitly means that the Approved Report likewise does not

⁶⁷ Brownlie pp 2-11

very similar drawdown cone to that modelled by WSP (see in this regard the report by Ingrid Dennis '*Review of the groundwater documentation related to the proposed Yzermyn Colliery*' dated August 2016 which is attached marked 'P' and which also forms part of this appeal). The August 2014 Delta H groundwater assessment went further by concluding that the mine was highly likely to decant post-closure⁶⁸.

50. There was therefore nothing contained in the Delta H groundwater assessment which would have warranted different findings to those contained in the NSS biodiversity report.
51. On 28 June 2016 the Mpumalanga Regional Manager of the DMR approved the Approved Report (Annexure B) as the EMPR of the Yzermyn underground coal mine project in terms of section 39(4) of the MPRDA.⁶⁹

PART C: THE GROUNDS OF APPEAL

C.1 The failure to include appropriate mitigation measures in respect of the management of impacts on water resources and biodiversity (first ground of appeal)

52. The deleted sections 39(3)(d)(i) and (ii) of the MPRDA, which still apply to the approval of the EMPR, require that an applicant who prepares an EMPR describe therein the manner in which he or she intends to:-
- 52.1. (i) modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; and

⁶⁸ August 2014 Delta H (Annexure K) p 69; February 2014 Delta H (Appendix C) p 56

⁶⁹ The Approved Report and substantiating documentation thereto where provided to the Centre for Environmental Rights (acting for the Appellants) by Atha on 20 September 2016

- 52.2. (ii) contain or remedy the cause of pollution or degradation and migration of pollutants.
53. In terms of the deleted section 39(4)(a)(i) of the MPRDA, which was likewise still applicable, the Regional Manager was only permitted to approve the EMPR if it complies with these requirements. Furthermore, in terms of regulation 50(e) of the MPRD Regulations the EIAR was required to *'determine the appropriate mitigatory measures for each significant impact of the proposed mining operation'* and in terms of regulation 51(b)(i) of the MPRD Regulations the EMPR was required to include *'a description of the appropriate technical and management options chosen for each environmental impact ... for each phase of the mining operation'*.
54. As explained in detail below, the proposed mitigation measures in the EIAR and the EMPR in respect of the management of impacts on water resources and biodiversity are not appropriate to contain or remedy the cause of the pollution and degradation and the migration of pollutants resulting from the proposed mining operations.

C.1.1 The decant of water and acid mine drainage (AMD) (and consequent biodiversity impacts)

55. The Brownlie review contains a detailed analysis of how the EIAR and the EMPR fail to address the decant of water and AMD, including mitigation measures⁷⁰, and points out, amongst others, the following:

55.1. The EIAR⁷¹ refers only to the discard dump in discussion of AMD potential. According to Brownlie *'[t]his is an unacceptably narrow view of the potential*

⁷⁰ Brownlie para e, pp 6, 7

⁷¹ Approved Report para 7.9.5.1, p 139. See also p 343 of the Approved Report.

*contamination source linked to coal mining*⁷². Brownlie refers to the NSS biodiversity report (Appendix C) which draws specific attention to AMD representing the most severe impact of coal mining on water resources (p 255).

55.2. Brownlie highlights the findings of one specialist study as follows:⁷³

'According to [the August 2014 Delta H groundwater assessment (Annexure K)], groundwater inflows into the proposed underground mine are 'highly likely', would be widespread, would extend beyond the site boundaries (i.e. regional), and would endure in the long term beyond mine closure with gradual increase in base flow. (p. 54). The post-closure modelling results indicate that it would take around 45 years for the mine voids to be completely flooded once active dewatering is stopped. Thereafter, decant via the adit and/or unsealed exploration boreholes in the vicinity is likely to occur. The potential post-closure impacts of decant from the underground mine voids on the groundwater quality are described as 'highly likely', long term, and may extend from local to regional scales, depending on the effectiveness of mitigation. (p. 69) In addition, given the low level of confidence in the groundwater model (p. 69), and uncertainty about sources of wetland/ river recharge [NSS (Appendix C) p. 185], there is a high risk of significant and long-term impacts on water quality.'

55.3. Brownlie further highlights that according to another specialist study

'...should the project proceed it will have a very high impact on the wetland ecology of the local area. The potential for post-closure decant of water

⁷² Brownlie para e, pp 6, 7

⁷³ Brownlie p 14

*from the underground mine void via the adit and/or unsealed exploration boreholes (Delta H, 2014) is of particular concern, as this will have a long term effect on surface water quality of not only on (sic) the wetlands within the study area, but also on aquatic resources within the greater catchment with special mention of the Assegaai River*⁷⁴. The study concludes by saying that *'[s]hould it be considered economically feasible to treat the decant water post-closure until water quality stabilizes, which could take many decades, to pre-mining water quality standards in such a way as to support the post closure land use, which is envisaged to be protected wilderness, the project would be considered feasible'*⁷⁵.

- 55.4. The EIAR acknowledges that impacts on groundwater quality include *'[p]otential acid mine drainage (AMD) once groundwater levels have recovered (20-50 years after mining ceases).'*⁷⁶ However, the long-term treatment of decant water / AMD is not addressed in the EIAR and EMPR, other than a broad statement that *'[f]ollowing mine closure, if decant occurs, water may be treated depending on the quality of the decant. The selection of an appropriate water treatment process will be dependent on the mine decant volumes, decant water quality, and the water quality in the receiving watercourse at the time.'*⁷⁷ (our emphasis)

⁷⁴ Brownlie p 7. This study is the 'Wetland Ecological Assessment as part of the Environmental Assessment and Authorisation Process for the proposed Yzermine Coal Mining Project' by Scientific Aquatic Services CC ('SAS') dated June, August 2014 ('the SAS 2014 report'), which is attached marked 'Q', p vi

⁷⁵ Brownlie p 7; the SAS 2014 report p vi

⁷⁶ Approved Report p 280

⁷⁷ Approved Report para 5.5.20, p 99. The Approved Report (para 16.1, p 522) also includes the following similar broad statement that *'[w]ater treatment will be used to treat any decant water from the underground mine and seepage from the discard dump, while the methods of treatment will be developed as better information becomes available. Treatment methods could be passive or semi-passive, using artificial wetlands or active treatment using ion exchange, reverse osmosis or bio-reactors. Current indications are that active treatment will be needed and budgeted accordingly. To reduce infiltration of water into the underground workings, storm water emanating*

55.5. There is thus no assurance that AMD would be appropriately managed, particularly post-closure of the mine. No explicit provision for a suitable treatment facility is made to treat post-closure decant for the many number of decades for which it could be required.

55.6. Referring to the NSS biodiversity report (Appendix C), the Brownlie Review points out that *'[i]n terms of biodiversity, both fauna and flora are exposed to ground and surface water contamination as the wetlands may be fed by both the shallow weathered aquifers and the deep fractured aquifers. Any contamination within these aquifers will therefore impact on the surface water quality downstream. This contamination will impact on the Present Ecological State of the wetlands and the eco-services the wetland can provide, the main one of which is the maintenance of biodiversity'*⁷⁸.

55.7. Reference is also made to paragraphs 33.1, 33.10, 33.11, 33.26, 33.27 and 37 above.

C.1.2 Dewatering of the surface water resources (wetlands) and groundwater contamination (and consequent biodiversity impacts)

56. The Brownlie Review highlights the following findings in the NSS biodiversity report (Appendix C):⁷⁹ *'[the report] ...concludes that the combined baseline and impact assessments indicate that the proposed project is fatally flawed and should be a 'no go' in terms of biodiversity. "Due to the HIGH and long-term (if not irreversible) status of this impact in an area far exceeding the study area, the project should be a*

from unmined areas will be channeled around the adit and ventilation shaft by earthen bund walls already in place from the construction phase. The adit and ventilation shaft will also be (sic) sealed by a concrete shaft seal designed by a qualified civil engineer.'

⁷⁸ Brownlie p 6. NSS biodiversity report p 255

⁷⁹ Brownlie p 14

NO GO” (reviewer’s emphasis) (p. 253). The specialists, Natural Scientific Services, explicitly state that “This is largely because of the impact of the proposed underground mining on the supply of water to the surface water resources (due to the de-watering activities) and the potential groundwater contamination. These aspects will have a significant impact on aquatic and wetland ecosystem functioning and biodiversity in a far greater area than the underground mining area. These and other aspects of the mining project are in strong conflict with international, national and provincial legislation, policies and guideline”. (p. 269) Furthermore, they note that “Most potential impacts of the mining operation had a HIGH overall significance rating, even with mitigation.” (p. 269)

57. In this regard the EIAR⁸⁰ states that ‘*The potential impact to the watercourse ecology due to changes in flow... has a High environmental significance. This is reduced to Low Medium should mitigation measures be implemented... The operations are expected to lead to a decrease in the water quality, expected to have a High environmental significance, reduced to Medium High should suitable mitigation measures be implemented.*’
58. According to the Brownlie Review,⁸¹ ‘[t]his contradicts the findings of [the NSS biodiversity report (Appendix C)]. According to the significance ratings in Table 4.1 (p. 238) of this Appendix:
- *Impacts on habitat and loss of species are High, but could be reduced to Medium-High with mitigation;*

⁸⁰ Approved Report p237

⁸¹ Brownlie para b, p 15

- *Decline in water inputs and water quality, leading to deterioration in present ecological state and functionality – are High before and after mitigation.'*

59. Reference is also made to paragraphs 33.1, 33.10, 33.11, 33.12, 33.16, 33.17, 33.18, 33.21, 33.22, 33.23, 33.25, 33.26 and 33.28 above.

C.1.3 Conclusion under this head

60. It is evident from the above that the proposed mitigation measures in the EIAR and the EMPR in respect of the management of impacts on water resources and biodiversity are not appropriate to contain or remedy the cause of the pollution and degradation and the migration of pollutants resulting from the proposed mining operations, and therefore the EMPR and EIAR on which it is based are not in compliance with sections 39(3)(d)(i) and (ii) of the MPRDA and regulations 50(e) and 51(b)(i) of the MPRD Regulations. Accordingly, in terms of section 39(4)(a)(i) of the MPRDA, it was not permissible for the Regional Manager to approve the EMPR.

61. The 'Record of Decision regarding the Environmental Management Programme' ('the MEM ROD') (attached marked 'R'), compiled by the DMR for the purpose of obtaining the Regional Manager's 'agreement to refuse the EMPR' (in other words, to provide reasons for the rejection of the EMPR by the Regional Manager), likewise regards the EMPR to not be in compliance with these provisions of the MPRDA and MPRD Regulations for, amongst others, the following reasons:⁸²

61.1. *'[t]he application falls within the Wakkerstroom wetland grassland area... comprise[d] of irreplaceable sites that are characterised by highly threatened species and large intact ecosystem ...';*

⁸² MEM ROD p 8 / p 2854

61.2. *'[t]he proposed mining activity and its associated infrastructure is intended to be located over the existing wetlands and rivers which will be directly affected and the proposed measures provided for the management of impacts towards the aforesaid water resources cannot be considered reliable to contain or remedy the cause of pollution or degradation... in that the said water bodies are interlinked and the destruction of one will ultimately destroy the entire ecosystem of the area';*

61.3. *'[t]he aforesaid water bodies forms an integral part of fresh water system and has also been identified as a source of fresh water supply for the country. The area in question forms an integral part of the headwaters of three of South Africa's twenty-two primary catchments...';* and

61.4. *'[t]he measures proposed to address the impact in relating to the wetlands and other water bodies within the area applied cannot be considered reliable to contain or remedy the cause of pollution or degradation... due to the nature of the environment'.*

62. Although the Appellants do not have access to the annexures to the MEM ROD, a further reason for the recommendation to refuse the EMPR appears to be that the application falls within the Mabola Protected Environment⁸³.

63. The MEM ROD was signed in support of the recommendation by the Deputy Director: MEM Mpumalanga Region, the Assistant Director: MEM Mpumalanga Region and the Environment Officer, Mpumalanga Region.⁸⁴ The copy of the MEM ROD in the possession of the Appellants was not signed by the Regional Manager.

⁸³ MEM ROD p 9 / p 2855

⁸⁴ MEM ROD p 9 / p 2855

C.2 The failure to include a proper assessment of cumulative impacts and to properly consider the critical, sensitive and vulnerable ecosystems impacted by the proposed mine (second ground of appeal)

64. The Brownlie Review notes that the EIAR focuses inappropriately on the direct ‘footprint’ impacts and ignores wider landscape, indirect and cumulative impacts⁸⁵.

C.2.1 Cumulative impacts

65. According to the Brownlie Review *‘[c]umulative impacts are poorly, vaguely and in some cases inaccurately described and their potential significance is inadequately evaluated in the EIAR’*⁸⁶. It observes that *‘[o]f the utmost concern ... is that the EIAR takes the stance that mining is underground, and for this reason, impacts on biodiversity and water resources would not be significant’*⁸⁷. For example, it is stated in the EIAR that *‘[i]t is important to note that mining will be underground and that biodiversity on the surface area for the majority of the target and remainder area will for the most part not be disturbed. The new preferred layout reduced the footprint area for the surface infrastructure from 80.9 ha to 47.2 ha’*⁸⁸. Refer to paragraphs 55 to 57 above for detail of the cumulative impacts which disprove this viewpoint expressed in the EIAR.

66. The Brownlie Review further highlights the following omissions within the EIAR regarding cumulative impacts:⁸⁹

⁸⁵ Brownlie para h, p 8; para c, p 12; para c, p 15

⁸⁶ Brownlie para h, p 8

⁸⁷ Brownlie p 23

⁸⁸ Approved Report p 165

⁸⁹ Brownlie para h, pp 8, 9

66.1. The EIAR omits the conclusion of the NSS Biodiversity report (Appendix C) (referring to the numerous applications for mining currently within the greater southern Mpumalanga study region) that *'[i]f a significant portion of these applications are approved, the combined impacts of mining, afforestation and agriculture will have a massive deleterious impact on Biodiversity at provincial and national levels.'* (p. 267)

66.2. According to the EIAR⁹⁰, *'the cumulative impacts with regards to water quality and quantity are expected to be limited'*. However, according to the Brownlie Review⁹¹ *'these impacts are not addressed by all of the relevant specialist studies and EcoPartners' conclusion is thus questionable. Relevant in this regard are the following findings from specialist studies:*

- *The surface water specialist⁹² ... states that the cumulative effects of the mine on water flows is expected to be limited, but this specialist only took into account the proposed mine, urban and agricultural effects (p. 29). Other mining activity in the area was not taken into consideration.*
- *Neither of the geohydrological assessments (WSP geohydrology impact assessment⁹³ ..., nor ... Delta H report⁹⁴) assessed cumulative impacts.*

⁹⁰ Approved Report p 238, referring to the Hydrological Assessment conducted by WSP dated 18 August 2013 (contained in Appendix C to the ESIA/ESMP substantiating documentation) 'the Hydrological Assessment (Appendix C)'

⁹¹ Brownlie para vi, p 9

⁹² Hydrological Assessment (Appendix C)

⁹³ WSP groundwater assessment (Appendix C)

⁹⁴ February 2014 Delta H groundwater assessment (Appendix C); August 2014 Delta H groundwater assessment (Annexure K)

- *The wetland assessment (Appendix H3, SAS report, 2014) did not assess cumulative impacts.'* (our emphasis)

67. Reference is also made to paragraphs 33.1, 33.12, 33.19, 33.24, 33.26, 33.27, 33.28 and 37 above.

C.2.2 The critical, sensitive and vulnerable ecosystems impacted by the proposed mine

68. Reference is made to paragraph 15 above, as well as to paragraphs 33.2, 33.3, 33.4, 33.5, 33.6, 33.11, 33.12, 33.13, 33.14 and 33.15 above, where the critical, sensitive and vulnerable ecosystems which would be impacted by the proposed mine are fully detailed.

69. Reference is made to paragraph 33.26 above where it is stated that NNS (Appendix C) found that due to the '*HIGH and long-term (if not irreversible)*' status of the impact of the mine on water inputs '*in an area far exceeding the study area, the project should be a NO GO*', as well as to paragraph 33.29 above where it is stated that NNS (Appendix C) found that the project '*is fatally flawed, and should be NO GO in terms of Biodiversity.*' Reference is also made to paragraphs 55 to 57 above dealing with the extensive and unmitigated negative water and biodiversity impacts of the proposed mine, and to paragraphs 65 and 66 above where cumulative impacts are detailed.

70. In this context, the EIAR's recommendation that the proposed mine proceed (the rejection of the 'no go alternative'⁹⁵) reflects a profound disregard for the widespread recognition of the critical, sensitive and vulnerable ecosystems which would be impacted by the proposed mine.

⁹⁵ See the Amended Report para 4.11, pp 69 to 72

C.2.3 Conclusion under this head

71. In ignoring wider landscape, indirect and cumulative impacts, including the critical, sensitive and vulnerable ecosystems within the project area the EIAR (on which the approved EMPR is based) falls foul of regulations 50(a) and (c) of the MPRD Regulations. Regulations 50(a) and (c) require that an EIAR include *'an assessment of the environment likely to be affected by the proposed mining operation, including cumulative environmental impacts'* (our emphasis) and *'an assessment of the nature, extent, duration, probability and significance of the identified potential environmental ... impacts of the proposed mining operation, including the cumulative environmental impacts'*, respectively.
72. Furthermore, section 37(1)(a) of the MPRDA provides that the principles set out in section 2 of NEMA apply to all mining operations and any matter or activity relating thereto, which necessarily includes the EIAR and EMPR. The Regional Manager's approval of the EMPR is in conflict with:
- 72.1. Section 2(4)(b) of NEMA which provides that *'[e]nvironmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option'*; and
- 72.2. Section 2(4)(r) of NEMA which provides that *'[s]ensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure'*.

C.3 The failure to include a proper and objective assessment of the adverse impacts of the project on people’s socio-economic conditions and environmental rights (third ground of appeal)

73. Reference is made to paragraphs 16 to 25 above.
74. The Brownlie Review contains a detailed analysis of how the socio-economic impacts of the proposed project have been dealt with in the EIAR.⁹⁶ Brownlie’s assessment is that *‘[t]he socioeconomic impacts of the proposed project are not addressed in a balanced and objective way, and fail to incorporate relevant findings of the socioeconomic specialist report [Appendix C]. The assessment of these impacts, and conclusions drawn by EcoPartners, are thus highly questionable.’*⁹⁷
75. Brownlie points out, among other things, that:
- 75.1. EIAR *‘notes that the return of the local economy to agriculture and tourism is likely to take up to 10 years (or longer depending on the degree of impact of the mine on the local physical environment)’*;
- 75.2. *‘[T]he main livelihoods prior to mining – agriculture and tourism – may be significantly negatively affected; eco-tourism has created about 400 jobs in the Wakkerstroom region ... and “The Wakkerstroom and surrounding conservation areas are significant townscapes with a strong future natural based tourist industry”*’;

⁹⁶ Although the Brownlie review analyses the Final Report, her findings in respect of the socioeconomic impacts of the proposed project are directly applicable to the Approved Report, which is identical to the Final Report in all relevant respects

⁹⁷ Brownlie 16-17. Note, the socioeconomic specialist report referred to by Brownlie as Appendix O is identical to the socio-economic study contained in Appendix C to the ESIA/ESMP substantiating documentation

- 75.3. *'Impacts of mining on tourism to the wider area and associated economic factors, income generation and employment have not been adequately assessed. Numerous sections in the EIAR refer to the moderate to high potential for expansion of tourism and recreation in the affected area, as well as the diversity of natural resources and aesthetic attributes of the area that serve as the foundation for this sector to grow'; and*
- 75.4. *'The potential influx of labour and job seekers, with associated negative impacts ... is inadequately assessed: most communities and local municipalities expressed concern regarding the potential influx of job seekers and labour into the area, which could affect accessibility to social and basic services, specifically healthcare, housing, water and sanitation, sense of place and social conflict'.*
76. The failure of the EIAR to report objectively and fully on the possible effects of the proposed project on the socio-economic conditions of people living in the area has the consequences that the EIAR is not in compliance with regulation 50(c) of the MPRD Regulations and the EMPR (which is based on the EIAR) is not in compliance with the deleted section 39(3)(b)(ii) of the MPRDA, which still applies to the approval of the EMPR. In terms of the deleted (but still applicable) section 39(4)(a)(i) of the MPRDA, such noncompliance with section 39(3)(b)(ii) meant that the Regional Manager was not permitted to approve the EMPR.
77. Furthermore, the information regarding socio-economic impacts which is contained in the specialist studies suggests that the greatest environmental impact of the mine is likely to be felt mainly by vulnerable and disadvantaged persons in the area,

namely subsistence farmers and poor rural communities who depend on the natural soil and water resources in the area to sustain themselves.

78. The Regional Manager's approval of the EMPR is therefore in direct conflict with section 2(4)(c) of NEMA which provides that '*[e]nvironmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged people*'. Whereas the negative impact of the project will be borne by poor communities in the area, the wealth of the natural resource removed from the ground will accrue predominantly to a foreign owned corporation and its shareholders. As explained above, section 37(1)(a) of the MPRDA provides that the principles set out in section 2 of NEMA apply to all mining operations and any matter or activity relating thereto, which necessarily includes the EIAR and EMPR.
79. The Regional Manager's approval of the EMPR is also in conflict with:
- 79.1. Section 2(4)(i) of NEMA which provides that '*[t]he social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment*'; and
- 79.2. Section 2(4)(a)(viii) of NEMA which requires that negative impacts on the environment and on people's environmental rights be anticipated and prevented and only where they cannot be altogether prevented, minimised and remedied.

C.4 The failure to ensure integrated decision making and to properly consider material concerns on the part of other State departments (fourth ground of appeal)

80. The deleted section 40(1) of the MPRDA, which still applies to the approval of the EMPR, provides that the competent authority, in this case the Regional Manager, *'[w]hen considering an ... environmental management programme in terms of section 39, ... must consult with any State department which administers any law relating to matters affecting the environment'*.
81. The deleted section 39(4)(b)(ii) of the MPRDA, which likewise still applies to the approval of the EMPR, provides that the competent authority, in this case the Regional Manager, *'may not approve the environmental management programme ... unless he or she has considered the comments of any State department charged with the administration of any law which relates to matters affecting the environment'*.
82. Two national State departments charged with the administration of law which relates to matters affecting the environment, namely the DWS (as it then was) and DEA raised serious concerns with Atha's proposed underground coal mine project⁹⁸, which were not adequately addressed in the EIAR⁹⁹ (on which the EMPR was based). Although the Regional Manager claims to have considered these comments,¹⁰⁰ there does not appear to be any reasonable or rational basis on which the Regional Manager could have approved the EMPR in the face of them.

⁹⁸ See paragraphs 40, 43 and 44 above

⁹⁹ See paragraph 48 above

¹⁰⁰ The Regional Manager's reasons for the approval of the EMPR (attached marked 'S') para ii, p 1

C.5 The EIAR (on which the EMPR is based) does not accurately summarise findings and recommendations contained in specialist reports (fifth ground of appeal)

83. The Brownlie Review records that *'[t]here is a major disconnect between the recognition by specialists of the significance of the biodiversity and water resources components...and of likely risks and impacts of the proposed mine on these components, and the findings and conclusions presented in the EIAR'*¹⁰¹.

84. Some examples of this include the following:

C.5.1 Impacts associated with water quantity and quality

85. The EIAR contains the following statement as regards impacts associated with water quantity and quality: *'...the impact on ground water and surface water is unlikely to be significant within the target area, the immediately surrounding area, or on a regional scale.'* (p 345 of Approved Report)

86. This statement is inaccurate and misrepresents the groundwater and hydrological specialists' findings that:

86.1. It will take around 45 / up to 50 years for the mine voids to be completely flooded once active dewatering is stopped. Thereafter, decant *via* the adit (or mine entrance) and/or unsealed exploration boreholes in the vicinity is likely to occur. The potential post-closure impacts of decant from the underground mine voids on the groundwater quality are *'highly likely'*, long

¹⁰¹ Brownlie p 13

term, and may extend from local to regional scales, depending on the effectiveness of mitigation¹⁰².

86.2. Due to the ***'HIGH and long-term (if not irreversible) status of this impact in an area far exceeding the study area, the project should be a NO GO'*** (NSS biodiversity review p 253). NSS stated explicitly that *'This is largely because of the impact of the proposed underground mining on the supply of water to the surface water resources (due to the de-watering activities) and the potential groundwater contamination. These aspects will have a significant impact on aquatic and wetland ecosystem functioning and biodiversity in a far greater area than the underground mining area. These and other aspects of the mining project are in strong conflict with international, national and provincial legislation, policies and guidelines'* (p 269).

86.3. *'Most potential impacts of the mining operation [have] a HIGH overall significance rating, even with mitigation.'* (NSS biodiversity assessment p 269).

C.5.2 Impacts on watercourse ecology due to changes in flow and water quality

87. The EIAR says that *'The potential impact to the watercourse ecology due to changes in flow... has a High environmental significance. This is reduced to Low Medium should mitigation measures be implemented... The operations are expected to lead to a decrease in the water quality, expected to have a High environmental significance, reduced to Medium High should suitable mitigation measures be implemented.'* (our emphasis) (p 237 of the Approved Report)

¹⁰² February 2014 Delta H groundwater assessment pp 55, 56; August 2014 Delta H groundwater assessment pp 68, 69

88. This contradicts the NSS biodiversity report which assigned the following significance ratings to these impacts:

88.1. Impacts on habitat and loss of species are High, but could be reduced to Medium-High with mitigation;

88.2. Decline in water inputs and water quality, leading to deterioration in present ecological state and functionality – are High before and after mitigation (NSS biodiversity report (Appendix C) Table 4.1 (p 238))

C.5.3 Impacts of AMD

89. The EIAR says that '*[d]uring the decommissioning and closure phases, the environmental impacts can be summarised as follows: ... the decrease in the water quality is expected to have a Medium environmental significance, reduced to Low Medium should mitigation measures be implemented.*' (p 238 of the Approved Report)

90. But the impact significance of AMD, the direct cause of a decrease in water quality, has not been assessed in any of the specialist studies (WSP groundwater assessment) (p 19).

C.5.4 Socio-economic impacts

91. The EIAR fails to incorporate several key findings contained in the socio-economic specialist report as appears in greater detail from the Brownlie Review (pp 16 to 17) and paragraphs 74 and 75 above.

C.5.5 FEPA Wetlands

92. The EIAR states that *'The NFEPA database does not indicate any wetlands on or adjacent to the study area...'* (p 292 of the Approved Report).
93. This overlooks the following findings contained in specialist reports:
- 93.1. The Assegaai River into which drainage from the site will flow is a FEPA river (NSS Biodiversity report (Appendix C) p 260);
- 93.2. *'...The greatest concern regarding the FEPA's is the potential impact of the mine on the water resources as a result of underground water reduction due to de-watering activities and groundwater contamination due to sulphate seepage from the mine workings and discard facility (WSP, 2013). Both the cone of depression and the groundwater contamination plume, extend to the wetland FEPA's in the near vicinity.'* (NSS Biodiversity report (Appendix C) p 209);
- 93.3. The loss or deterioration of the wetlands on the proposed mining site could, depending on the drawdown cone, extend beyond the study area into the wetland FEPAs within the mine lease area and the wetland FEPAs and Wetland Clusters in the immediate surrounds (NSS Biodiversity report (Appendix C) p 246).

C.5.6 Conclusion under this head

94. To the extent that the EIAR inaccurately summarises findings and recommendations contained in specialist reports, which we submit is to a material extent, it does not comply with regulation 50(g) of the MPRD Regulations and the Regional Manager's

approval of the EMPR (which was based on the EIAR) falls to be set aside for his failure to take into account this relevant consideration.

CONCLUSION

95. In the premises the appellants request that the appeal be upheld.

DATED AT CAPE TOWN THIS 13th DAY OF OCTOBER 2016.

A handwritten signature in cursive script, appearing to read 'C. Horsfield' or similar, written in black ink.

CENTRE FOR ENVIRONMENTAL RIGHTS

Appellants' Attorneys

2nd Floor, Springtime Studios

1 Scott Road, Observatory

Tel. 021 447 1647

Fax: 086 730 9098

Ref: Catherine Horsfield/Suzanne Powell

TO: THE DIRECTOR-GENERAL (ACTING), DEPARTMENT OF MINERAL RESOURCES

Mr David Msiza

By hand

Address: Department of Mineral Resources

Building 2C, 4th Floor

70 Trevenna Campus

Corner of Francis Baard and Meintjies Streets

Sunnyside

Pretoria

DMR Ref. No.: MP30/5/1/2/2/10069MR

AND TO: CHIEF DIRECTOR: LEGAL SERVICES, DEPARTMENT OF MINERAL RESOURCES

Email: pieter.alberts@dmr.gov.za

AND TO: ATHA AFRICA VENTURES (PTY) LTD

Email: morgam.munsamy@athagroup.in