

IN THE WATER TRIBUNAL
(held at Pretoria)

In the appeal under section 148 of the National Water Act 36 of 1998 between:

**ENDANGERED WILDLIFE TRUST
FEDERATION FOR A SUSTAINABLE ENVIRONMENT
MPUMALANGA LANDBOU/AGRICULTURE**

**First Appellant
Second Appellant
Third Appellant**

and

**DIRECTOR-GENERAL: DEPARTMENT OF
WATER AND SANITATION
ATHA-AFRICA VENTURES (PTY) LTD**

**First Respondent
Second Respondent**

**WRITTEN RESPONSE OF SECOND RESPONDENT
TO APPEAL SUBMISSION OF 15 DECEMBER 2016**

1. This is an administrative appeal to the Water Tribunal under section 148(1)(f) of the National Water Act 36 of 1998¹ against the decision of the Responsible Authority² on an application for a water use licence under section 41 of the NWA by Atha-Africa Ventures (Pty) Ltd³ lodged by the Appellants.
2. A formal Notice of Appeal together with a supporting written submission on the Grounds of Appeal was delivered on or about 15 December 2016.
3. The purpose of this document is to provide written submissions on behalf of Atha-Africa in response to the said Notice of Appeal and in the response to the

¹ hereinafter referred to as the NWA.

² in this case the Acting Director-General of the Department of Water and Sanitation, cited herein as the First Respondent and hereinafter referred to as the Director-General.

³ hereinafter referred to as Atha-Africa and cited herein as the Second Respondent.

written submissions in support of the Grounds of Appeal⁴ - this document will therefore provide the basis or point of departure for the oral presentation of the case for Atha-Africa during the hearing of this administrative appeal before the Water Tribunal.

4. This response is necessary because of the various incorrect allegations, misrepresentations (including presenting certain facts out of context), selective quotations and similar inaccuracies which are advanced by the Appellants in the Supporting Submission.
5. In the result this response will deal with certain of the paragraphs or allegations contained in the Supporting Submission in so far as that may be necessary, with legal arguments and submissions - to put this matter in its proper legal framework and context - to be dealt with in separate Heads of Argument on behalf of Atha-Africa.

Ad paragraph 2 thereof:

6. The First Appellant and the Second Appellant, represented by the Centre for Environmental Rights, did not submit any comments on the application during the review period between 19 June 2015 to 20 August 2015 whilst the Third Appellant participated in the public participation process for the application by submitting a letter dated 19 August 2015.

⁴ hereinafter referred to as the Supporting Submissions.

Ad paragraph 9 thereof:

7. The underground mining footprint covers an area of some 1,200 hectares and the impact of the underground mining operations on the wetlands above is limited:

7.1 Firstly, there will be a minimal surface disturbance in this area , with the surface layout of the mine infrastructure confined to 22.4 hectares above ground.

7.2 Secondly, the available information points to a very limited connectivity between the shallow aquifers and the deep aquifers and not the extensive connectivity assumed by the Appellants.

7.3 Thirdly, in the southern section of the underground mining area the mining void will be 1.2 km below the surface and thus far below the wetlands on the surface: this in itself makes an impact on the surface wetlands as a result of the underground mining activities highly unlikely.

7.4 Fourthly, and also important, the further assumption by the Appellants that the seep wetlands on site will be affected by the underground mining activities because of that extensive connectivity appears to be unfounded: on the available information the seep wetlands on or near the site are perched aquifers on impermeable layers (recharged by rainfall).

Ad paragraph 10 thereof:

8. The final surface layout of the mine infrastructure (which was decided upon and approved as the Best Environmental Option⁵) has a footprint reduced from some 80 hectares to one of approximately 22.4 hectares⁶ and it was re-engineered to have the smallest possible impact on the wetlands:⁷

8.1 The overall footprint of the total surface layout originally covered an area of some 80 hectares which included amongst others a discard dump; this was reduced to approximately 22.4 hectares - not only was the size of the site reduced, but the severity of the impacts was also reduced because of a change in the scope of the contemplated activities above ground.

8.2 Provisional planning indicated that the layout of the surface infrastructure coincided with some 14.1 hectares of total wetland area but the Department of Water and Sanitation⁸ requested a more accurate survey, as a result of which it was then determined by a surveyor that the total wetland area within the total surface infrastructure footprint was only some 12.1 hectares.

⁵ Section 1(1) of the National Environmental Management Act 107 of 1998 defines “*best practicable environmental option*” to mean the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term.

⁶ See the Scientific Aquatic Services Assessment Report (2015).

⁷ See the Integrated Water and Waste Management Plan (2015) p. 13 (figure 2-1).

⁸ hereinafter referred to as the Department.

8.3 However, although some 12.1 hectares of wetland is located within the surface infrastructure footprint, only some 2.9 hectares of wetland is directly disturbed by surface infrastructure: 0.0724 hectares thereof will be disturbed by a road constructed according to the required engineering and environmental specifications and 2.79 hectares thereof will be disturbed by a pollution control dam also constructed according to the required engineering and environmental specifications as set out in GN R. 704 of 1999.

8.4 The remaining 9.2 hectares of wetland falls within the area demarcated for surface infrastructure (and will be included within a fenced-off area) but will not be directly disturbed by the construction of surface infrastructure therein.

9. The area demarcated for surface infrastructure thus coincides with some wetlands over an area of only 12.1 hectares but, from a **conservation perspective**,⁹ those wetlands are of minor significance:

9.1 **Firstly**, these wetlands are located inside an area that was previously disturbed by past agricultural activities and are currently still regarded as mostly disturbed.

⁹ There is a fundamental distinction between **environmental sensitivity** and **conservation sensitivity**. Nobody disputes that a wetland is sensitive from an environmental perspective (in other words, from an ecological or natural sciences perspective) but that does not mean that it is sensitive from a conservation perspective (in other words, also from a social and/or economic or social sciences perspective).

9.2 Secondly, these wetlands are regarded as not sensitive, vulnerable or important by the specialists for the purpose of conservation: Scientific Aquatic Services describes the area in their delineation letter,¹⁰ which is based on field work done on-site by the wetland specialist and ground-truthing,¹¹ as follows:

“The wetlands in the vicinity of the proposed surface infrastructure are best defined as hillslope seeps which are highly marginal and due to the nature of the wetlands forming a temporary wetland/moist grassland mosaic. The variation from the surrounding terrestrial areas is extremely limited and no significant niche habitat is created. The importance of these hillslope seepage wetlands from a floral and faunal habitat conservation point of view is therefore considered extremely limited.”

- 10.** A request from the Department of Water and Sanitation,¹² to have the wetland boundaries for the surface infrastructure layout verified by a wetland specialist, prompted (1) the field work, (2) the accurate surveying by a registered surveyor and (3) the specific mapping of the wetlands as described in the said delineation letter of Scientific Aquatic Services.¹³
- 11.** The impact of the underground mining operations on the wetlands is limited, as there is very limited connectivity between the shallow aquifers, the deep aquifers and the seep wetlands on site (which can probably be attributed to perched

¹⁰ See the Wetland Delineation Letter of 28 April 2015.

¹¹ as incorporated in the Scientific Aquatic Services Assessment Report (2015).

¹² hereinafter referred to as the Department.

¹³ See the Wetland Delineation Letter of 28 April 2015.

aquifers on impermeable layers); more importantly, the underground mining footprint of the proposed mine cannot coincide with any wetlands because the one feature is on the surface and the other feature is some 1.2 km underground - even though there will be mining underneath the wetlands, the impact from localised and deep underground mining on the wetlands above will be very small or limited in relation to the regional occurrence of wetlands.

12. None of the reports found that the wetlands in question have national or international importance - even though these wetlands score high on the scoring system used for sensitivity and ecological importance, they score low on importance for water supply for human use;¹⁴ furthermore the supplied ecosystem services are indicative thereof that these wetlands have a high level of resilience (for example, the observed recovery of fields that have been previously ploughed without any measures of mitigation or rehabilitation).¹⁵

Ad paragraph 11 thereof:

13. The predominant land uses in the larger area of Quaternary Catchment W51A are historically that of commercial forestry, commercial agriculture requiring irrigation for the production of crops and grazing for livestock, commercial agriculture based on dry land farming, subsistence farming and eco-tourism - this is however not representative of the current predominant land uses of the

¹⁴ See the report by Natural Scientific Services (2013) p. 201.

¹⁵ See the Scientific Aquatic Services Assessment Report (2015) p. 67.

much smaller area of the Yzermyn Project (predominantly used for livestock grazing).

14. On a large scale the unique biodiversity of Quaternary Catchment W51A has in general been recognised in various broad-stroke policy documents and/or instruments but the perception created that the proposed mining area is specifically also an area of “*unique biodiversity*” is not correct: this demonstrates one of the fatal flaws in the case for the Appellants, namely to make policies and/or instruments based upon and intended for large scale application applicable to the proposed mining area without taking into account the site-specific facts of the proposed mining area or the relatively small area thereof.

15. The major dams in the Maputo River Basin (of which Quaternary Catchment W51A forms a part) are:
 - 15.1 the Pongolapoort Dam, situated in Quaternary Catchment W44E of the Nkomati-Usutu Water Management Region in which the land uses are predominantly commercial irrigation and environmental; and

 - 15.2 the Heyshope Dam, situated in Quaternary Catchment W51B of the Nkomati-Usutu Water Management Region, into which the Assegaai - river runs and of which the predominant land use is for industrial purposes, more specifically for the industrial operation of coal-powered power stations supplying electrical energy to the national grid of the

Republic of South Africa.

16. The idyllic picture painted by the Appellants leaves out of account the socio-economic reality of pervasive and depressing poverty (also occurring in the immediate vicinity of the Yzermyn Project)

Ad paragraph 14 and 15 thereof:

17. The central proposition advanced in these paragraphs, namely that the Scientific Aquatic Services Assessment (2014) was based on an outdated surface layout is false.
18. The Scientific Aquatic Services Assessment (2014) was based on the Best Environmental Option Surface Layout;¹⁶ the Social and Environmental Impact Report (2014),¹⁷ which was made available for public comment,¹⁸ expressly indicated the new preferred surface infrastructure alternative and this was the new site layout considered in the Scientific Aquatic Services Assessment (2014).
19. Moreover, in the Supporting Submission the Appellants do not mention all the wetland reports that were available and part of the information to be taken into consideration for the purposes of the application:

¹⁶ See paragraph 8 above.

¹⁷ on p. 65 thereof.

¹⁸ See paragraph 6 above: neither the First Appellant, the Second Appellant or the Centre for Environmental Rights availed themselves of this opportunity.

19.1 a report of May 2014 is omitted; and

19.2 a revision of that report in May 2015 is omitted.

Scientific Aquatic Services also conducted, in addition to the wetland delineation, a determination of the Present Ecological State¹⁹ as well as the Ecological Importance and Sensitivity²⁰ of the wetland systems identified within the greater mining area (which included wetlands within 500 m of the boundary of the greater mining area).²¹

20. On the other hand, the Natural Scientific Services Report (2013) - on which the Appellants rely so extensively - suffers from the following:

20.1 **Firstly**, the Natural Scientific Services Report (2013) relies on an outdated site layout that was prepared before the reduction and the engineering thereof before the “*best environmental option*” was decided upon and therefore incorrectly assumed larger environmental impacts than warranted: it is false to state that the same or similar environmental impacts are applicable, because the reduction of the activities will alter the impacts and one cannot reach the same conclusion if the based on

¹⁹ commonly referred to by the acronym PES.

²⁰ commonly referred to by the acronym EIS.

²¹ See in this regard annexure F of the Integrated Water and Waste Management Plan (2015), dealing with the wetland ecological assessment, as part of a broader environmental assessment and authorisation process, for the proposed Yzermyn Project.

the changes.

20.2 **Secondly**, the Natural Scientific Services Report (2013) relies on an outdated aquifer model derived from the WSP Report:

20.2.1 The WSP Report developed a highly connected aquifer model (contemplating significant hydraulic connection between the shallow aquifers and the deep aquifers without any corroborating evidence).

20.2.2 The more recent Delta H Report indicates that there was very limited connectivity between the shallow aquifers and the deep aquifers.

20.2.3 Also on this basis the Natural Scientific Services Report (2013) therefore incorrectly assumed larger environmental impacts than warranted: it is false to state that the same or similar environmental impacts are applicable because the reduction of the activities will alter the impacts.

20.2.4 The natural occurrence (for all to observe on site), of a dry historical mine adit less than 2 kilometre from the proposed adit of the Yzermyn Project, indicates that the Delta H model more closely represents the actual or natural aquifer

systems underground and the very limited connectivity between them.

20.3 Thirdly, the Natural Scientific Services Report (2013) did not take into account the possibility that the seep wetlands on the site can possibly be attributed to perched aquifers on impermeable layers (and thus not influenced by the shallow aquifers and/or the deep aquifers).

20.3.1 Support for the inference in the Delta H Report of such a possibility is based on the clay lenses that were observed in profile pits.

20.3.2 This inference was further supported by observations that the Dry Season Water Supply from springs is limited, since a number of the springs are dry in winter - which is further corroboration for the quick rainfall recharge of a very shallow perched aquifer theory.

20.3.3 Also on this basis the Natural Scientific Services Report (2013) therefore assumed larger environmental impacts than warranted.

20.4 Fourthly, the Natural Scientific Services Report (2013) acknowledges

expressly that the impacts are localised²² yet the Appellants advance a case of widespread impact and mayhem across the whole country.

21. Atha-Africa did not keep the Natural Scientific Services Report (2013) from the Department, despite the fact that the generalised conclusions reached therein were premised on information that was different or dated; instead, that report was submitted to the Department together with the Delta H Report as well as the Scientific Aquatic Services Assessments which placed everything in a new perspective using the evidence of site-specific conditions: instead of presenting the true and correct facts concerning these reports in their proper perspective, the Appellants selected the information that suited their case by overemphasising the Natural Scientific Services Report (2013) and dismissing the other reports.

Ad paragraph 16 thereof:

22. To put this timeline in its proper perspective, one has to start much earlier in order to appreciate that this matter also has a dimension of foreign investments in the South African mining industry.

22.1 On 17 August 2006 a prospecting right in respect of the relevant properties was granted to Ingwe Collieries Ltd in terms of section 17 of

²² See the report by Natural Scientific Services (2013) p. 243 (section G on impact assessment).

the MPRDA.

- 22.2** On 18 October 2007 the said prospecting right was transferred from Ingwe Collieries Ltd to Bunengi Investment Holdings (Pty) Ltd in terms of section 11 of the MPRDA
- 22.3** On 20 June 2011 the said prospecting right was transferred from Bunengi Investment Holdings (Pty) Ltd to Bunengi Mining Services (Pty) Ltd in terms of section 11 of the MPRDA
- 22.4** During 2011 and at an international trade fair, representatives from the Republic of South Africa invited the Atha Group to invest in the South African mining industry.
- 22.5** On 17 November 2011 the share capital of Bunengi Mining Services (Pty) Ltd was transferred to Turvil Investment (Pty) Ltd and Dialstat Trading (Pty) Ltd in terms of section 11 of the MPRDA.
- 22.6** On 24 November 2011 the Regional Manager of the Department of Mineral Resources granted an application for the renewal of the said prospecting right in terms of section 18 of the MPRDA and issued such a renewal of the said prospecting right on 9 December 2011 in favour of Bunengi Mining Services (Pty) Ltd, for a period until 8 December 2014.

- 22.7** On 23 May 2012 the company holding the said prospecting right, Bunengi Mining Services (Pty) Ltd, formally changed its registered name to that of Atha-Africa: for the large financial investment in this mining opportunity, Atha-Africa is the corporate vehicle of a foreign investment made upon invitation by the Republic of South Africa; accordingly this matter does not only have a national or domestic and local perspective but also impacts upon the trade reputation of this country as well as the confidence of foreign investors in the South African mining industry - which industry is capital intensive and dependent upon the availability of huge amounts of capital.
- 22.8** On 19 March 2013 and as the holder of the said prospecting right, Atha-Africa submitted its application for a mining right in terms of section 23 of the MPRDA with a view to embark upon the Yzermyn Project.
- 23.** The rest of the events then followed: the granting of the said mining right by the Director-General on 19 September 2014, the amendment of the said mining right by the Minister of Mineral Resources on 14 April 2015, the granting of an environmental authorisation for the Yzermyn Project and the approval of the environmental management programme for that project on 28 June 2016.
- Ad paragraph 18 thereof:**
- 24.** We take note of the allegations contained in this paragraph but, as will become

apparent from the rest of this response, those three reviews are with respect nothing more than theoretical and armchair criticism; the exercise conducted by Brownlie, Dennis and GCS was to nitpick without proper consideration of all of the available information and without regard for practicalities, clearly within the context of a preconceived ecological frame of reference or paradigm instead of the constitutionally-ordained concept of sustainable development: the integration or balancing of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations - the environmental management system contemplated in section 24 of the Constitution and established by section 2 of NEMA²³ is **anthropocentric in nature**.²⁴

Ad paragraph 20 thereof:

25. The said Water Use Licence was issued to Atha-Africa by the Director-General on 7 July 2016 but only after a process during which a thorough evaluation of the application for that license was conducted by the Department.

26. Before the Water Use Licence was issued on 7 July 2016 for the specific water uses (as defined in section 21 of the NWA) associated with or related to the

²³ the acronym for the National Environmental Management Act 107 of 1998.

²⁴ By way of background we mentioned that in theory two different philosophies are recognised, namely the biocentric philosophy (putting life first) and the anthropocentric philosophy (putting humans first): the South African legal system has opted for the latter philosophy but internationally the various environmental lobbyists and non-governmental organisations ignore the positive law and instead advance biocentric arguments.

Yzermyn Project, the following sequence of events is relevant:

- 26.1** On 29 October 2013 a pre-application meeting was held in Pretoria between representatives from Atha-Africa and officials of the Department with regard to the application for a Water Use Licence.
- 26.2** On 9 January 2014 the Department responded formally to the original assessments submitted to the Department of Mineral Resources and listed various concerns with the application for a Mining Right lodged in terms of the MPRDA²⁵ by Atha-Africa.
- 26.3** Atha-Africa replied on 5 March 2014 to this letter from the Department and submitted the updated assessment reports to the Department of Mineral Resources.
- 26.4** On 10 March 2014 the application for a Water Use Licence was submitted by Atha-Africa to the Department, which included the necessary consent letters from the affected land owners:²⁶ the land owners did not have any objection to the application and clearly did not anticipate any significant adverse impact upon their own water use should the Water Use Licence be granted.

²⁵ the acronym for the Minerals and Petroleum Resources Development Act 28 of 2002.

²⁶ Such a consent is compulsory where the applicant for a Water Use Licence is not the owner of the land in question.

- 26.5** On 10 April 2014 further information was requested by the Department; the submission of an Integrated Water and Waste Management Plan (2015) in support of the application for a Water Use Licence was also required.
- 26.6** On 18 March 2015 the updated application for a Water Use Licence, supported by a previous draft of the Integrated Water and Waste Management Plan, was submitted to the Department.
- 26.7** On 22 April 2015 comprehensive review comments by the Department was provided to Atha-Africa to be addressed, which included the need for more specialist studies.
- 26.8** On 12 May 2015 the site of the Yzermyn Project was visited by officials from the Department and inspected.
- 26.9** On 29 May 2015 the Department instructed Atha-Africa that an additional 60 day period of public participation was required on the revised application for a Water Use Licence and on 19 June 2015 all the relevant documentation was made available for public comment.
- 26.10** On 22 June 2015 the period for public participation and public comment on the revised application for a Water Use Licence (with all of its supporting documentation) was extended by the Department for some

two weeks up to 28 August 2015.

- 26.11** On 25 August 2015 there was another visit and inspection of the proposed mining site, this time by officials from the national Head Office of the Department together with some officials from the Catchment Management Agency (an institution established in terms of the provisions of the NWA for catchment management or regionalised management of water resources, thus making a contribution from a regional perspective insofar as the management of water resources is concerned).
- 26.12** Upon conclusion of the period for public participation on 28 August 2015, a further revision of the application for a Water Use Licence (supported by a revised Integrated Water and Waste Management Plan) was submitted to the Department as contemplated in section 40 of the NWA.
- 26.13** On 26 October 2015, after a perusal and analysis of the application and its supporting documents, the Department again requested some further information to be submitted and which information was submitted by Atha-Africa to the Department on 10 November 2015.
- 26.14** On 30 November 2015 classification of information pertaining to biodiversity, wetlands and groundwater in the area of the Yzermyn Project was presented by Atha-Africa to the Department.

26.15 On 27 January 2016 representatives of Atha-Africa met with officials from the Department to address engineering design concerns related to the planned pollution control infrastructure of the Yzermyn Project; on or about 11 February 2016 the final design drawings were submitted by Atha-Africa to the Department after various meetings with members of the technical staff of the Department.

26.16 The Director-General then approved the application for a Water Use Licence subject to and conditional upon the mitigation plans proposed by Atha-Africa, with Water Use Licence 05/W51A/ACFGIJ/4726²⁷ being issued on 7 July 2016 to Atha-Africa for a period of 15 years in respect of the Yzermyn Project.

26.17 The application for a Water Use Licence was thus scrutinised and considered over a period of some 32 months from 29 October 2013 to 7 July 2016 in an iterative procedure with interaction between Atha-Africa, officials from the Department, officials from the Catchment Management Agency, members of the public who took the trouble to participate in the public participation process, a local municipality which supported the application and the owners of the affected land.

27. In this paragraph the Appellants list the specific water uses for which the Water Use Licence has been granted; however, it is not the approval or decision to

²⁷ of which a copy is attached as annexure 'A' to the Supporting Submission.

authorise those water uses that is really at stake in this matter but the Yzermyn Project itself - in effect this is an attempt to prevent the implementation of the Yzermyn Project by having the Water Tribunal vetoing all the other positive decisions that had already been taken with regard to the Yzermyn Project without any regard for the provisions of section 41 of the Constitution - and this explains why the Supporting Submission **(1)** is more concerned with procedure than merits, **(2)** is premised upon a checklist approach instead of a sober reflection of the polycentric nature of an application for a Water Use Licence, **(3)** is placing undue emphasis on the disadvantages and impacts of coal mining in general, and **(4)** totally disregards the concept of sustainable development by leaving social sustainability as well as economic sustainability out of an equation that is supposed to strive for a balance - within an anthropocentric environmental management system under NEMA²⁸ which calls for the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development (such as the Yzermyn Project) serves present and future generations.²⁹

Ad paragraph 21 thereof:

- 28.** Section 49(1) of the NWA provides that a Responsible Authority may review a Water Use Licence only at the time periods stipulated for that purpose in the

²⁸ The same anthropocentric philosophy or legal policy is also the foundation for the NWA.

²⁹ See section 1(1) *sv* “*sustainable development*” of NEMA; section 2 of the NWA where the principles of sustainable development within an anthropocentric environmental management system are reflected in the stated purpose of the NWA.

licence.

29. This is not a provision that bestows a discretionary power upon the Responsible Authority but is in the nature of an empowering provision which allows such a review to be conducted and which is clearly coupled with a legal duty to indeed review a licence within the stipulated time periods.³⁰
30. What is significant in this regard is the requirement that the Water Use Licence be reviewed every two years: the Water Use Licence of Atha-Africa is thus subject to regular reviews and is thus inherently flexible enough by way of appropriate amendments of the conditions thereof to address any unexpected situation, impact not previously anticipated or the need for additional measures of mitigation.

Ad paragraph 23 *in fin* thereof:

31. Although the environmental importance of an area from a regional and national perspective is inherently a relative issue, the point of departure of this paragraph (about the alleged environmental importance of the proposed mining area from a regional and national perspective) is nothing more than an embellishment - created by taking information that was provided in the context of a very broad or large-scale and then presenting it out of context without regard for the local reality, operating on a much smaller scale, and without even bothering to

³⁰ See *Julius v Bishop of Oxford* 5 AC 214.

ground-truth the local reality.

31.1 **Firstly**, the footprint of the surface infrastructure falls inside an area that was mostly previously disturbed and various studies, ground-truthing the information in the regional and national databases thereby verifying the features of the local reality, indicated that it is not sensitive, vulnerable and important from a conservation perspective³¹ - this is evident from site inspections and aerial photographs³² showing that the site was previously ploughed.

31.2 **Secondly**, none of the specialist reports found that these wetlands have national or international importance; on the contrary, a field study by Scientific Aquatic Services resulted in the recordal already quoted in **paragraph 9.2 above**.

31.3 **Thirdly**, as far as the underground mining operations is concerned, the impact thereof on the wetlands is limited and even minimal, given **(1)** the very limited connectivity between the shallow aquifers and the deep aquifers and **(2)** the probability that the seep wetlands on site can be attributed to perched aquifers on impermeable layers.

³¹ There is a **fundamental distinction** between **environmental sensitivity** and **conservation sensitivity**. Nobody disputes that a wetland is sensitive from an environmental perspective (in other words, from an ecological or natural sciences perspective) but that does not mean that it is sensitive from a conservation perspective (in other words, also from a social and/or economic or social sciences perspective).

³² See the Integrated Water and Waste Management Plan (2015) @ figure 3.

- 31.4 Fourthly**, the environmental sensitivity, vulnerability and importance of the surrounding area was considered and it was found that there will not be significant impacts provided that Atha-Africa implement the mitigation measures recommended by the specialists as well as implement the conditions to the Water Use Licence laid down by the Department.
- 31.5 Fifthly**, the consideration of the Department relates to the national asset of water resources and whether the use of water, in conjunction with the use of another national asset (the mineral resource coal) will be in the best interest of the Republic of South Africa, considering all the relevant information.
- 31.6 Lastly**, the physical evidence on the ground indicates that water quality in the relevant area is still good despite the presence of several historical coal mines which were left behind without any mitigation or rehabilitation.
- 32.** Taking into account the limited impact from mining operations together with the mitigation measures in place, the Yzermyn Project will not even have any significant regional impact: after all, the report of National Scientific Services, upon which the Appellants have hoisted their petard, acknowledges that the impacts are localised³³ and therefore cannot be ecologically important on a national or international level.

³³ See the report by Natural Scientific Services (2013) p. 243 (section G on impact assessment).

Ad paragraph 23.2 thereof:

33. The underground footprint of the Yzermyn Project does not and cannot coincide with the wetlands as the mining operations will take place underground while the wetlands are on the surface; even though mining will take place underneath the wetlands, the impact from the underground mining on the wetlands above this footprint will be very small in relation to the regional occurrence of wetlands (for reasons already explained).
34. The surface footprint of the Yzermyn Project does coincide with several wetlands, as was disclosed and declared to the Department precisely so that the Director-General can take it into consideration for the purposes of the application for a Water Use Licence; however, as has already been pointed out, the total surface infrastructure footprint has not only been reduced from 80 hectares to 22.4 hectares but it was also re-engineered to have the smallest possible impact directly on only 2.9 hectares of previously disturbed wetlands with very little if any conservation significance.

Ad paragraph 23.3 thereof:

35. The Appellants rely again extensively on the Natural Scientific Services Report (2013), of which the outdated nature has been dealt with in **paragraph 20 above**.

36. The Scientific Aquatic Services Assessment Report (2015)³⁴ found some of the relevant wetlands to have a Category B and a Category C status insofar as their Present Ecological State is concerned - this is **firstly** omitted by the Appellants who instead selected to create the perception that all the wetlands in question have a Category A status in this regard.

37. The Scientific Aquatic Services Assessment Report (2015) **secondly** reveals a material problem with methodology in classification but the Appellants also did not disclose this to the Water Tribunal: in that report³⁵ it is stated that:

“... although the WET-Health assessments show that Wetland Systems 1-4 are deemed to be in a PES Category A, the methodology does not make allowances for all on-site observations of significance and therefore it is the opinion of the ecologists that whilst wetland resources located in the higher altitude, less inaccessible areas are likely to be in a PES Category A, the wetland resources in the lower-lying areas have undergone a greater degree of modification and are therefore more likely to be a PES Category B or potentially Category C depending on site-specific impacts.”

38. The previous or historical disturbance of the 12.1 hectares of wetlands within the surface footprint of the Yzermyn Project through agricultural activities (which included ploughing of the land) has already been referred to but is not mentioned by the Appellants in this context; if the existing impacts of alien invasive species and cattle tracks on these wetlands, as referred to by the Appellants are also taken into account, the existing impacts **thirdly** are not as limited and minor in

³⁴ p. 64.

³⁵ p. 65 (own underlining added for the sake of emphasis).

extent as the Appellants would have the Water Tribunal belief.

39. Furthermore the potential impact on the wetlands within the surface footprint **fourthly** was not only reduced (from 80 hectares to 22.4 hectares) but was also re-engineered to have the smallest possible impact on the wetlands (in line with the principle that where a disturbance or impact cannot be altogether avoided, it is minimised and remedied).
40. Also to take into account is **fifthly** the fact that currently the wetlands in the surface footprint (which are neither natural nor unmodified) are being managed for grazing (with cover vegetation burnt by local farmers from time to time to get better grazing on a frequent basis) and are not being managed for wetland conservation purposes.
41. **Lastly** it is also not correct to claim that the same wetlands are implicated: this claim is made upon the basis of the outdated Natural Scientific Services Report (2013) which incorrectly conceptualises shallow aquifers connected to deep aquifers and which leaves out of account the existence of localised perched aquifers supporting the seep wetlands.

Ad paragraph 23.4 thereof:

42. The proposition advanced in this paragraph is again premised upon the outdated Natural Scientific Services Report (2013) for the reasons set out in **paragraph**

20 above.

- 43.** Neither the Natural Scientific Services Report (2013) nor the Scientific Aquatic Services Assessment Report (2015) state that these wetlands have national or international environmental importance so that the central proposition advanced by the Appellants is an embellishment: this aspect concerning the environmental importance of these wetlands has been dealt with in **paragraph 12 above**.
- 44.** In fact, the acknowledgement in the Natural Scientific Services Report (2013) that the impacts on the wetlands are localised is irreconcilable with the claim by the Appellants that the wetlands are considered to be ecologically important and sensitive on a national or even an international level.
- 45.** The ecological importance and sensitivity of the relevant wetlands cannot be determined by way of a convenient label or by relying on selective information; instead the following should also be considered:
- 45.1** the entire site-specific eco-system, with specific reference to the actual footprint-specific impact on the area (to be contrasted with the abstract and large scale generalisations relied upon by the Appellants);
- 45.2** the acknowledged localised impacts on the wetlands;
- 45.3** the reduction and re-engineering of the surface footprint to minimise and

remedy or mitigate any impacts on the wetlands;

- 45.4** that a site-specific assessment showed that the Ecological Importance and Sensitivity of the Wetland System was placed in a Category C (meaning that it was already moderately modified), that there is a problem with the current integrity of the site, and that within the footprint of the existing surface disturbance of the wetlands only 1 floral species and 1 bird species out of the numerous conservation-important species were identified; and
- 45.5** the Scientific Aquatic Services Assessment Report (2015) confirming that the biodiversity of these wetlands in the surface footprint is not in general sensitive to flow and habitat modifications.³⁶
- 46.** The Quaternary Catchment W51A is drained by the Assegai-river, which flows into the Heyshope Dam where the intended use of the water is for industrial purposes to generate electricity in coal-fired power stations: these wetlands therefore do not play the embellished “*major role in moderating the quantity and quality of water of major rivers.*”
- 47.** One cannot, with respect, take classifications designed for and made on a large or generalised scale covering hundreds and even thousands of square kilometres and then, without any respect for site-specific or footprint-specific

³⁶ p. 26 and p. 80.

characteristics and the implications of changing to a smaller scale in the order of a few thousand hectares, make the abstract and generalised propositions flowing from such an overarching classification directly applicable to the relatively small site of the Yzermyn Project.

Ad paragraph 23.5 thereof:

48. Again the proposition in this paragraph is a generalisation without any regard for scale or site-specific circumstances: so, for example, these wetlands within the footprint of the Yzermyn Project are not used for “*tourism and recreation*” but for commercial agriculture and the grazing of livestock.
49. Again the Appellant relies upon the outdated Sciences Services Report (2013) for this sweeping proposition but leaves out of account the Scientific Aquatic Services Assessment Report (2015) which dealt with the existing disturbances of the wetlands within the surface footprint and in respect of the wetlands above the underground footprint concluded that these only provided “*MODERATELY HIGH*” eco-services.³⁷
50. Although the wetlands in question do supply eco-system services to and on the site as well as the vicinity thereof, the reality is that the already demonstrated limited impact from the mining operation in conjunction with the mitigation measures in place will result in no significant regional impact; in fact, even the

³⁷ p. 23 and p. 71.

Natural Scientific Services Report (2013) had to conclude that the impacts of mining operations are localised.

Ad paragraph 23.7 thereof:

51. **Firstly**, only three headwater streams flow from the area directly above the underground mining footprint, of which only two are adjacent to the surface infrastructure, and find their way ultimately to the Assegai-river - which is not classified as a Category B river as is claimed by the Appellants but, from documents attached to the Appellants own Supporting Submission, was regarded as a Category C river by the Director-General in the reasons for approving the Water Use Licence.³⁸
52. **Secondly**, as already stated, the Assegai-river drains into the Heyshope Dam in order to supply water for industrial purposes.
53. **Thirdly**, this is again an instance of the illogical and total disregard of scale by the Appellants: the National Freshwater Eco-system Priority Area Data Base was done at a high level of desk-top generalisation and on a rough as well as a large scale (covering huge areas), while the specialist studies in support of the application for a Water Use Licence were conducted by means of actual field studies and on-site ground truthing over a relatively much smaller area.

³⁸ p. 33 of the reasons forming part of annexure 'A' to the Supporting Submission.

54. **Fourthly**, the Appellants - again relying on the Natural Scientific Services Report (2013) - alleged that there are six wetlands with a Category A or a Category B status on the National Freshwater Eco-system Priority Area Data Base and thus in a natural or largely natural condition in close proximity of the Yzermyn Project but what is not disclosed by the Appellants is the following finding in the Scientific Aquatic Services Assessment Report (2015):³⁹

“The NFEPA database identifies six wetlands within the north-eastern portion of the study area, in which no mining activities are planned. A portion of one of these wetlands identified by NFEPA falls partially within 500m of the underground mining boundary. The database does not identify any other wetlands within the remaining portion of the study area which was the primary focus of this investigation.”

55. **Fifthly**, the existence and proximity of the said six wetlands were declared in the Environmental Impact Assessment Report⁴⁰ and was thus before the Director-General when he took his decision; all the various stakeholders, including the registered interested and affected parties, had been afforded the opportunity to review and comment on all the information provided, throughout the Yzermyn Project.

56. **Sixthly**, the use of a uniform distance of 1 km by the Appellants in delineating wetland clusters as National Freshwater Eco-system Priority Areas is not rational and/or not justified under the circumstances:

³⁹ p. 40.

⁴⁰ p. 215.

56.1 The National Freshwater Eco-system Priority Area Guideline Document, referred to by the Appellants, provides as follows:

“Applications for mining and prospecting in FEPAs and associated sub-quaternary catchments should be subject to rigorous environmental and water assessment and authorization processes, as mining has a widespread and major negative impact on freshwater ecosystems”.

It is thus not a question of an desk-top evaluation but a question of a process of rigorous assessment and authorisation.

56.2 That same Guideline Document also provides a guideline for delineating wetland clusters and propose the following:

“A scientifically defensible distance for migration between wetlands should be tested using a variety of taxa (e.g. insects, wetland-dependent birds, frogs) and other ecological processes (e.g. wetland plant pollination processes). The uniform distance of 1 km used in delineating wetland clusters for NFEPA may also need to be different, depending on the region and its associated biota, and ecological and biophysical processes.”⁴¹

56.3 In any event, the National Freshwater Eco-system Priority Area Guideline Document is a guideline document and not a set of prescripts; more specifically this guideline cannot be interpreted as an explicit blanket prohibition of mining activities within a 1 km buffer of any wetland with a

⁴¹ See section 5.7.2 of the NFEPA Implementation Manual, in particular those aspects of the Ecosystem Management Guidelines in chapter 6 thereof which specifically relate to mining and prospecting.

National Freshwater Eco-system Priority Area status.

57. **Seventhly**, although the National Freshwater Eco-system Priority Area Guideline Document is only a guideline, Atha-Africa took its guidance requiring a thorough assessment seriously and specifically instructed the relevant specialists to undertake rigorous environmental and water assessments for purposes of the Environmental Impact Assessment and Water Use Licence Application processes, using scientifically defensible methods which are in line with the National Freshwater Eco-system Priority Area Guideline Document; from this thorough and rigorous assessment the appropriate mitigation measures were developed NFEPA and these mitigation measures, together with the conditions attached to the Water Use Licence, will ensure that the mining activities will not have a widespread and major negative impact on the freshwater ecosystems identified.⁴²
58. In the result there is **lastly** also absolutely no evidence to suggest that a rigorous assessment and authorization process was not followed within the parameters and in accordance with the guidelines for National Freshwater Eco-system Priority Areas, and that all the policy requirements in this regard were not only met by Atha-Africa but also duly respected and followed by the Director-General; to the contrary, there is ample evidence to suggest that a very rigorous assessment and authorization process was followed.

⁴²

See Environmental Impact Assessment Report p. 325-393.

Ad paragraph 23.8 thereof:

59. Although the Yzermyn Project is located a relatively short distance from the Enkangala Drakensberg Strategic Water Source Area, it is not situated within that area but within the area of Quaternary Catchment W51A (which, as the Director-General in his response correctly pointed out, is situated within the Nkomati-uSutu Water Management Area); furthermore, there is a huge uncertainty as to whether the Yzermyn Project will have any impact whatsoever on the Enkangala Drakensberg Strategic Water Source Area.
60. Although the Appellants attempt to make the Yzermyn Project part and parcel of a Strategic Water Source Area (which it is not), clearly so that they can opportunistically advance arguments out of context but based upon the policy considerations pertaining to such an area, it is illuminating to take cognizance of the views of the South African National Biodiversity Institute:⁴³
- 60.1 According to SANBI the Strategic Water Source Areas are those areas that supply a disproportionate amount of mean annual runoff to a geographical region of interest; these areas are important because they have the potential to contribute significantly to overall water quality and supply, supporting growth and development needs that are often a far distance away.

⁴³ hereinafter referred to by the acronym SANBI.

- 60.2** According to SANBI the Strategic Water Source Areas, at a national level, form the foundational ecological infrastructure on which a great deal of built infrastructure for water services depends: investing in Strategic Water Source Areas is also an important mechanism for long-term adaptation to the effects of climate change on water provision, growth and development.
- 60.3** According to SANBI the importance of managing the small fraction of land constituting Strategic Water Resource Areas that contributes so vitally to our water security should be acknowledged at the highest level across all sectors; deterioration of water quality and quantity in these areas can have a disproportionately large negative effect on the functioning of downstream ecosystems and the overall sustainability of growth and development in the regions they support.
- 60.4** According to SANBI the appropriate management measures include: maintaining healthy functioning riparian zones and wetlands; ensuring good agricultural management leads to soil conservation that supports the water cycle; avoiding activities that reduce stream flow (e.g. irrigated agriculture and forestry plantations) and where this is not possible ensuring careful regulation of these activities; minimizing ground water abstraction; clearing invasive alien plants; and restoring the hydrological functioning of degraded landscapes.

- 60.5** What SANBI does not require in respect of a Strategic Water Source Area is a blanket prohibition on mining activities nor does it require that appropriate management measures include the exclusion of mining: what SANBI in effect calls for is a special duty of care and responsible custodianship when it comes to a Strategic Water Source Area.
- 61.** The site-related facts are that only the volume of water, authorised for use in terms of the NWA, will be used by the mine: the remainder of run-off (including the potential groundwater inflows) will be released back into the environment (after treatment, as and if required) - in other words, only the authorised but insignificant volume of water actually consumed by the Yzermyn Underground Mine will be “lost”.
- 62.** Lastly and without derogating from the strategic importance of a Strategic Water Source Area, but taking into account the material and significant differences between the scales used for different purposes and instruments, it is unlikely that the Yzermyn Project with its small surface footprint and its underground mining activities lies in an area that contributes or will contribute to a high yield area, especially because the site is situated close to the edge of several water divides, making the run-off areas small in comparison to the larger catchment area.

Ad paragraph 23.9 thereof:

- 63.** The Appellants imply that the downstream water users will be affected by the

Yzermyn Project because of its alleged situation at the headwaters of the Pongola, Vaal and Thukela Rivers; however the proposition of the Appellants that the Yzermyn Project is situated in the headwaters of these three rivers is factually incorrect.

63.1 The Yzermyn Project is situated in Quaternary Catchment W51A, which forms part of the Nkomati-uSutu Water Management Area for the management of the Usuthu River System; the Vaal River System as well as the Pongola River System fall in other catchments and management areas, whilst the Thukela River System originates from Mount-Aux-Source in the Southern Drakensberge very far from the Yzermyn Project.

63.2 Again the actual or footprint-specific facts are misrepresented or embellished by the Appellants.

64. The suggestion that the downstream water users of the Pongola, Vaal and Thukela Rivers will be affected is therefore baseless but in any event the water users downstream from the Yzermyn Project will also not be affected:

64.1 The Assegaii-river, which drains Quaternary Catchment W51A, falls in the Nkomati-uSutu Water Management Area and feeds run-off water to the Heyshope Dam which is located in Quaternary Catchment W51B - the Heyshope Dam is part of the Usutu-River Government Water Scheme with its total catchment both Quaternary Catchment W51A and

Quaternary Catchment W51B, both of which contributes to the flow in the Assegai-river upstream from the Heyshope Dam.

64.2 The Heyshope Dam has a storage capacity of 453 million m³ and covers a 5,000 hectare surface area: after taking into account evaporation losses of some 20 million m³ per annum, reduction of supply by afforestation of some 0.7 million m³ per annum as well as by alien vegetation of some 0.3 million m³ per year, the Heyshope Dam has a firm yield (or reliable security of delivery) of some 67 million m³ per annum.

64.3 The Mean Annual Run-off in the catchment of the Heyshope Dam is calculated at 129 million m³ of water per annum with the potentially irrigable or exploitable land calculated to require 12.07 million m³ of water per annum and the domestic use requirement some 1.6 million m³ of water per annum (of which some 0.5 million m³ of water per annum returns to the system): this means in short that the annual balance of water available in the Heyshope Dam can be used for other purposes and furthermore there is enough storage capacity available that surplus water can also be intercepted and stored - the outcome of this is that the Heyshope Dam has a reliable security of delivery or the firm yield of water supply required for the generation of electricity in a coal-fired power station.⁴⁴

⁴⁴ For planning and funding agricultural activities a 70% security of delivery is normally required (in other words, the farmer or the entrepreneur must have the comfort that he can rely on a sufficient water supply in 7 years out of the 10 years). For the generation of electricity the requirement is 100% security of delivery (in other words, that a

64.4 The water supplied by Quaternary Catchment W51A and Quaternary Catchment W51B to the Heyshope Dam is mainly transferred out of the catchment area for industrial use: some 60 million m³ of water per annum is transferred to the Grootdraai Dam (of which 2 million m³ per annum is lost during the transfer in the system) from the Heyshope Dam (completed in 1982 and built primarily to support the water needs of **(1) firstly**, the SASOL coal-to-petrol plants at Secunda and **(2) secondly**, the strategic coal-fired power stations of Eskom at Tutuka Power Station, Matla Power Station, Duvha Power Station, Kendal Power Station and Kriel Power Station located on the coal fields in the adjacent Olifants River Basin.

64.5 With a Mean Annual Run-off of some 129 million m³ per annum (with 12.07 million m³ per annum required for agriculture, some 1.6 million m³ per annum required for domestic purposes and some 60 million m³ per annum required for industrial purposes in another catchment) the impact of the Yzermyn Project will be insignificant: the Yzermyn Project will use an average volume of 200,000 m³ per annum (or, to express it in the same unit for comparison, some 0.2 million m³ per annum or a mere 0.155% of the Mean Annual Run-off for the Heyshope Dam - this can easily be augmented by eradicating the alien evasive plants, sucking up our precious water resources, with the Yzermyn Project providing the financial means (and creating additional job opportunities for the local

sufficient water supply will be available 10 years out of 10 years).

inhabitants of the surrounding area) to effectively combat these alien plants so that the 0.3% of the Mean Annual Run-off previously lost to alien evasive plants⁴⁵ is prevented.

65. In the result and when the Yzermyn Project proceeds, then no downstream users will be negatively affected by the Yzermyn Project but, if the Yzermyn Project does not proceed, then the implications for the water resources in these catchments will suffer from the environmental implications of poverty, poor agricultural practices and the uncontrolled spreading of alien plants - all of these are likely to lead to increased sedimentation and a reduction in the Mean Annual Run-off so that its yield or security of delivery will be compromised.

Ad paragraph 23.10 thereof:

66. Even the half-truths contained in this paragraph are presented totally out of context and without any regard for the historical events which preceded the declaration of the Mabola Protected Environment on 22 January 2014 under Provincial Notice 20 of the Mpumalanga Provincial Gazette No 2251 of the same date in terms of section 28 of the National Environmental Management: Protected Areas Act 57 of 2003.⁴⁶
67. **Firstly**, as appears more fully in **paragraph 22 above**, there was already a

⁴⁵ See paragraph 63.2 above.

⁴⁶ hereinafter referred to as NEMPAA.

prospecting right vested over various properties and over a large area in existence as from 17 August 2006 (before any initiative for the Mabola Protected Environment even started) with Atha-Africa, after an invitation during 2011 from the Government of the Republic of South Africa to invest in the mining industry of this country, becoming the holder of that prospecting right on 17 November 2011 and, by virtue of the exclusive right of the holder of a prospecting right to submit an application for a mining right in terms of section 19(1)(b) of the MPRDA,⁴⁷ submitting such an application on 19 March 2013: in other words, the situation was that on 22 January 2014 there was not only an existing prospecting right in place but also a pending application for a mining right after the prospecting demonstrated that mining the coal reserve was not only feasible but viable, and thus represented a large capital investment already made by Atha-Africa in the Yzermyn Project and in the South African mining industry.

- 68. Secondly**, as the Appellants well know, Atha-Africa participated in the initiative to have the Mabola Protected Environment declared and, as a result of various objections and declarations, the original plan to have Portion 1 of the Farm Yzermyn also included therein was abandoned: Portion 1 of the Farm Yzermyn was specifically and intentionally not included within the Mabola Protected Environment because this was the portion of land that was reserved to accommodate the surface infrastructure required (on Portion 1 of the Farm Yzermyn outside of the Mabola Protected Environment as declared) for access

⁴⁷ Section 19(1)(b) of the MPRDA provides that, in addition to the rights referred to in section 5 thereof, the holder of a prospecting right has, subject to subsection (2), the exclusive right to apply for and be granted a mining right in respect of the mineral and prospecting area in question.

to the underground mining operations of the Yzermyn Project (on Portion 1 of the Farm Yzermyn and other mining properties located inside of the Mabola Protected Environment as declared) - these circumstances were not only present and known to the Member of the Executive Council when the Mabola Protected Environment was declared but was specifically taken into account for that purpose and therefore it is with respect mischievous to suggest that the purpose of this declaration was to protect the environment against coal mining.

69. **Thirdly**, whilst NEMPAA makes provision for a system of protected areas in the Republic of South Africa which consist of various kinds of protected areas (including a Protected Environment),⁴⁸ the only kind of protected area in which commercial prospecting or commercial mining is permissible, is in fact a Protected Environment⁴⁹ - in any event there is no immediate threat or danger for the Mabola Protected Environment itself because in terms of the Mine Work Programme the underground mining activities will only reach the relevant properties after three years and by then more information will be available on

⁴⁸ Section 9 of NEMPAA recognises the following kinds of protected areas:

- special nature reserves;
- national parks;
- nature reserves (including wilderness areas);
- protected environments;
- world heritage sites;
- marine protected areas;
- specially protected forest areas, forest nature reserves and forest wilderness areas declared in terms of the National Forests Act 84 of 1998; and
- mountain catchment areas declared in terms of the Mountain Catchment Areas Act 63 of 1970.

⁴⁹ See section 48(1)(b) of NEMPAA which, under the heading "*Prospecting and mining activities in protected area*", provides that, despite other legislation, no person may conduct commercial prospecting, commercial mining or related activities in Protected Environment without the written permission of the both the Minister of Environmental Affairs and the Minister of Mineral Resources.

which to base suitable amendments to the Water Use Licence or any future need for additional mitigation measures.

70. **Lastly** there is no reference of any kind to a need for the protection of the Mabola Protected Environment against coal-mining in the gazetted reasons for the declaration thereof, which were:

70.1 to enable owners of the land to take collective action to conserve biodiversity on their land and to seek the legal recognition thereof;

70.2 to protect the area **if sensitive to development** due to biodiversity; natural characteristics; scenic and landscape value; and provision of environmental goods and services;

70.3 to protect a specific ecosystem; and

70.4 to ensure that the use of natural resources is sustainable.

What has now become clear, however, is that a number of parties from the private sector (such as various farm owners of adjacent land as well as non-governmental organisations) abused the declaration of the Mabola Protected Environment in the hope that they would then be able to use the status of the land as a Protected Environment under NEMPAA to prevent coal-mining: their secret motivation and their secret agenda are to prevent coal-mining at the

Yzermyn Project by Atha-Africa at all costs and for whatever self-serving reason they can think of, disregarding the constitutional imperative for sustainable development in order to alleviate the pervasive poverty so prevalent in this country.

Ad paragraph 23.11 thereof:

71. The classification of the Wakkerstroom/Luneberg Grasslands as “*endangered*” in terms of the National Environmental Management: Biodiversity Act 10 of 2004⁵⁰ does not mean either that coal-mining for the Yzermyn Project becomes prohibited (or even undesirable) in terms of the Environmental Law or that the water-related uses may not be authorised or licensed in terms of the NWA.

72. The purpose of classification or listing of threatened or protected ecosystems under the Environmental Law is not to ensure the persistence of landscape-scale ecological processes or to ensure the provision of ecosystem services: one of the main implication of such classification or listing is the implication of having to obtain a prior environmental authorization for an activity or development so that a proper assessment before authorization is triggered and a proper monitoring-and-management regime is put in place - in this context classification or listing is not the equivalent of a prohibition against development but a command to proceed with caution and care for the environment so that a sustainable balance between the need for development and the protection of the

⁵⁰ hereinafter referred to as NEMBA.

environment can be achieved.

73. In this regard item 12(f)(i) of Listing Notice 3 of 2014⁵¹ lists the clearance of an area of 300 m² or more of indigenous vegetation within any critically endangered or endangered ecosystem listed in terms of section 52 of NEMBA - this means that any development involving a loss of natural habitat in a listed critically endangered or endangered ecosystem is likely to require at least a basic assessment in terms of the Environmental Impact Assessment Regulations⁵² for the purposes of authorising a specific development or activity: in this instance the relevant information was provided to the Competent Authority as well as all registered interested and affected parties, affording them the opportunity to review and comment on all the information provided throughout the project, and on this basis the Environmental Authorisation in terms of NEMA has already been approved with due consideration of the status of the grasslands.
74. This information was also disclosed to the Director-General for the purposes of the application for a Water Use Licence to the extent that it was or might be relevant - the Appellants, however, do not show a connection between the status of the grasslands and the water uses for which a licence is being applied for; in other words, the concern is not so much with the specific water uses but with the broader environmental concern and their opposition to coal-mining.

⁵¹ published as GN R.985 of 4 December 2014 (in Government Gazette No. 38282 of 4 December 2014) in terms of section 24(2), 24(5), 24D and 44, read with section 47A(1)(b) of NEMA.

⁵² See the Environmental Impact Assessment Report p. 38-39.

Ad paragraph 23.12 thereof:

75. The propositions advanced in this paragraph demonstrate how the Appellants misrepresent facts out of context and selectively quote from reports.
76. **Firstly**, the Mining and Biodiversity Guideline (2013) is not in the nature of a binding prescript but is in the nature of a guideline and moreover is based not on site-specific investigations but is premised on large-scale generalisations: this document should in our respectful submission be read within the context of applying the correct scale to each and every project on a case by case and site-specific basis, and not within the constraints of an illogical and very wide interpretational basis - one cannot directly and immediately apply large-scale and generalised instruments developed for a regional overview to a much smaller site where assessment is done on a much smaller scale: **this is like using a large scale map showing the national roads of the Republic of South Africa to find an intersection between two municipal roads within the suburb of a city.**
77. **Secondly**, the assumption or suggestion by the Appellants - that the Mining and Biodiversity Guideline (2013) prohibits prospecting and/or mining in so-called “*High-Risks*” areas - is simply incorrect and the result of a partisan interpretation because this guideline expressly states the following (own underlining added for the sake of emphasis):⁵³

⁵³ See the Mining and Biodiversity Guideline (2013) p. 33.

“Alternatively, prospecting or mining may be deemed permissible, but within a clearly defined spatial area, provided that a particular method is used (e.g. underground rather than surface mining), or according to specific conditions with regard to mitigating impacts on biodiversity or ecosystem services. There may be a requirement to secure biodiversity offsets or other forms of compensation for curtailed ecosystem services where it is not possible to mitigate impacts.”

This is precisely the situation with the Yzermyn Project: **(1)** mining will take place within a clearly defined spatial area not only with regard to the surface footprint which has been reduced to the minimum but also with regard to the underground mining operations; **(2)** Atha-Africa has no intention to undertake opencast mining and this will be an underground mining operation; and **(3)** the mining operations will take place according to specific conditions with regard to mitigating impacts on biodiversity or ecosystem services.

78. Thirdly, the various mitigation measures as recommended by specialists were found to be adequate and reasonable by the Mining Authority,⁵⁴ the Environmental Authority⁵⁵ and the Water Authority;⁵⁶ in addition and from the outset, Atha-Africa is on the record as being willing to work hand in hand with the relevant authorities as well as with interested non-governmental organisations to ensure a sustainable biodiversity protection and co-existing mining model that will be to the socio-economic benefit of the surrounding communities and will

⁵⁴ when granting the mining right and approving the Environmental Management Programme in terms of the MPRDA.

⁵⁵ when approving the environmental authorisation in terms of NEMA.

⁵⁶ when the Director-General approved the application for a Water Use Licence in terms of the NWA.

promote the responsible management of potential environmental impacts.

79. **Fourthly**, this paragraph is a classic example of the Appellants selectively quoting from a report⁵⁷ without putting the full picture before the Water Tribunal: this is what the Natural Scientific Services Report (2013) had to say on this aspect:

“Environmental screening, EIAs and their associated specialist studies should focus on confirming the presence and significance of these biodiversity features, and to provide site-specific basis on which to apply the mitigation hierarchy to inform regulatory decision-making for mining, water use licences, and environmental authorisations.”

This is precisely what was done for the purposes of the Yzermyn Project.

*“If they are confirmed, the likelihood of a fatal flaw for new mining projects is very high because of the significance of the biodiversity features in these areas and the associated ecosystem services. These areas are viewed as necessary to ensure protection of biodiversity, environmental sustainability, and human well-being. **Authorisations may well not be granted. If granted, the authorisation may set limits on allowed activities and impacts, and may specify biodiversity offsets that would be written into licence agreements and/or authorisations.**”*

The Appellants only quoted the portion underlined as if the foregone conclusion is a prohibition against mining but in context the actual crux of the report is that of an informed decision so as to find a proper and sustainable balance between development and environment.

⁵⁷ albeit the outdated Natural Scientific Services Report (2013) p. 211-212.

80. **Fifthly**, information concerning the Mining and Biodiversity Guideline (2013) was in any event disclosed to the authorities⁵⁸ and was made available for the purposes of public participation, whereupon the relevant information was reviewed and assessed also against the background thereof.

Ad paragraph 23.13 thereof:

81. Again the Appellants ignore the obvious and logical implications of scale.
82. The Mpumalanga Biodiversity Sector Plan (2013) is a high-level document prepared on a provincial level with a provincial scale: on a grand scale the Yzermyn Project may well fall into certain desk-top designated areas but on grass-root level a totally different picture emerges.
83. Site studies indicated **in the first place** that the surface infrastructure area has been previously disturbed by ploughing, with marginal wetlands in place (own underlining added for the sake of emphasis):

"The wetland resources in the vicinity of the proposed surface infrastructure have been significantly disturbed due to historical tilling and crop cultivation as well as grazing and seasonal fires. These impacts have affected the vegetation community and soil profiles and no vegetation communities of significant conservation importance were observed. The loss of these vegetation and habitat resources within the proposed infrastructure area is

⁵⁸ See the Environmental Impact Assessment Report p. 379.

*therefore not considered significant at any spatial scale.*⁵⁹

84. Furthermore, as has already been pointed out, the surface infrastructure area was in **the second place** specifically excluded from the declaration of the Mabola Protected Environment by the same provincial authority that developed the Mpumalanga Biodiversity Sector Plan (2013).
85. **In the third place** the information pertaining to the Mpumalanga Biodiversity Sector Plan (2013) was disclosed⁶⁰ to all the relevant authorities as well as the registered interested and affected parties - for an opportunity to review and comment thereon - with a positive outcome, in the sense that all the required authorisations were granted: in other words, the policies and considerations underlying the Mpumalanga Biodiversity Sector Plan (2013) have been taken into account with the various specialist studies and were not found to be inconsistent or irreconcilable with the Yzermyn Project: this evaluation must have taken place and did take place within the paradigm of the broader constitutional imperative for sustainable development and the anthropocentric⁶¹ environmental management system under NEMA.
86. **In the last place**, the area designated as an “*Irreplaceable Critical Biodiversity Area*” in the Mpumalanga Biodiversity Sector Plan (2013) relates to the surface

⁵⁹ See Scientific Aquatic Services Assessment Report (2015) p. @.

⁶⁰ See the Environmental Impact Assessment Report p. 258.

⁶¹ See section 2(2) of NEMA: environmental management **must** place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

of the land above the underground mining area: the rationale for using the specific mining method (of underground board-and-pillar mining instead of opencast coal-mining) is precisely to avoid and minimise any impact on the surface biodiversity.

Ad paragraph 23.14 thereof:

87. The Grassland Biome wherein the Yzermyn Project falls, covers an extensive area in Southern Africa but more importantly is the fact that not all of the parts and portions of this area are uniform or are equally endowed with either species richness or with biodiversity.
88. Moreover, to draw a comparison with the Fynbos Biome is false: one may well compare generally the Grassland Biome with the Fynbos Biome on a grand scale in terms of biodiversity but to suggest, as the Appellants clearly do, that specifically the Yzermyn Project as a small (and even insignificant) part of the Grassland Biome has an extremely high biodiversity which is second only to the Fynbos Biome, is with respect untenable.
89. In any event this information was also before the relevant authorities⁶² and was subjected to the public participation process, with the same result: the necessary authorisations were granted after the information pertaining to the Grassland Biome (as well as the site-specific studies) were taken into account.

⁶² See the Environmental Impact Assessment Report p. 192.

Ad paragraph 23.15 thereof:

90. **Firstly**, the Natural Scientific Services Report (2013), upon which the Appellants rely, did not refer to 6 floral species that are “*at a high risk of extinction in the wild*” in the study area and this exaggeration is without any foundation in the available evidence: the Natural Scientific Services Report (2013)⁶³ stated the following:

“Six floral CIS species that are TSP (Threatened Species Programme) listed were located during the surveys.”

The Natural Scientific Services Report (2013) does not make any mention that these floral species are allegedly “*at high risk of extinction in the wild*”.

91. **Secondly**, the study area the Natural Scientific Services Report (2013) was much larger than the reduced area designated for the surface infrastructure.
92. **Thirdly**, only 1 (one) such specie was found in the area designated for the surface infrastructure, an area which was in any event disturbed by previous human activities and which has a low conservation significance.
93. **Fourthly**, it is standard practice for proper environmental management to permit protected species to be removed and re-planted as a mitigation measured if they occur in the directly-disturbed surface infrastructure footprint.

⁶³ p. 51-52.

94. In any event this information was also before the relevant authorities⁶⁴ and was subjected to the public participation process, with the same result: the necessary authorisations were granted after the information pertaining to the affected floral species (as well as the site-specific studies) were taken into account.

Ad paragraph 23.16 thereof:

95. This paragraph demonstrates how the Appellants manipulate information.
96. **Firstly**, the 21 conservation-important species of mammals have not been recorded previously in the proposed mining area: the actual statement in the Natural Scientific Services Report (2013) was that 21 conservation-important species of mammals “*have been recorded in the QDS’s*” wherein the Yzermyn Project is situated - “QDS” is the acronym for “*Quarter Degree Square*” and is used in a surface grid system in which each block or square in the grid system is an area of 30 km x 30 km (90,000 hectares) whilst the proposed mining area (including the underground portion where one can hardly say that mammals will be affected) covers less than 10% thereof with the surface area thereof covering less than 0.0244% thereof.
97. **Secondly**, the Natural Scientific Services Report (2013) observed only 8 conservation-important species of mammals in the whole of the study area for the Yzermyn Project but none were detected in the area that will be impacted on

⁶⁴ See the Environmental Impact Assessment Report p. 192.

by the surface infrastructure.

Ad paragraph 23.17 thereof:

98. The observation and recordal of sightings of conservation-important bird species are also done on the basis of a QDS- based grid system; in other words, these conservation-important bird species were observed and recorded for an area of some 30 km x 30 km (90,000 hectares) whilst the proposed mining area (including the underground portion where one can hardly say that birds will be affected) covers less than 10% thereof with the surface area thereof covering less than 0.0244% thereof.
99. In any event a general observation of the observed and recorded presence of conservation-important bird species in the general area is of little or no relevance in view of the site-specific circumstances: underground mining operations will not have any discernible impact on the surface habitat for the birds whilst only an insignificant portion of bird habitat will be removed to accommodate surface infrastructure for the limited duration of the life-of-mine.

Ad paragraph 23.18 thereof:

100. The Natural Scientific Services Report (2013) stated that at least 7 conservation-important reptile species may occur in the study area for the Yzermyn Project, which include one classified as "*provincial vulnerable*" and six classified as

“*globally or provincially near threatened*”: the report **firstly** does not state the occurrence of these reptile species as likely and **secondly** the Yzermyn Project will largely be conducted underground.

Ad paragraph 23.19 thereof:

101. Again the Appellants ignore the implications of scale: the Important Bird Area referred to by the Appellants span an area covering some 800 farms and tens of thousands of hectares whilst only a reduced area of some 22.4 hectares on Portion 1 of the Farm Yzermyn will be directly affected by infrastructure development - in this context it should also be remembered that the specialists have observed very few conservation-important bird species not only in the relevant Quarter Degree Square area (of 90,000 hectares) but even less in the designated surface infrastructure area.

Ad paragraph 23.20 thereof:

102. The outdated Natural Scientific Services Report (2013) have already been listed in **paragraph 20 above** and the reliance by the Appellants thereon is with respect opportunistic: these assumptions upon which the Natural Scientific Services Report (2013) was based, were part of the information made available during the public participation process and also to the Appellants but elicited no reaction.

- 103.** The reality is that the Natural Scientific Services Report (2013) make use of a groundwater model developed by other specialists and so reliant on different assumptions made by a different entity, leaving its own conclusions vulnerable because of changed circumstances and because of new information becoming available of the site-specific ground-truthing.

- 104.** The revised study by Delta H - which was used in the Scientific Aquatic Services Assessment Report (2015) - saw Delta H building an independent water model on the basis of evidence showing that the swallow aquifers and the deep aquifers were not significantly connected (contrary to the false assumption in the Natural Scientific Services Report (2013), from which a large and unacceptable impact on biodiversity was inferred); when the firm Natural Scientific Services reviewed this updated and revised model, the comment was simply that *“this impact, together with the impact of the decant, should both make the project unfeasible if not mitigated efficiently”* (own underlining added) - the mitigation measures to address these impacts were listed in all the application documents, including the Integrated Water and Waste Management Plan (2015).

- 105.** In this regard the conclusion reached in the Natural Scientific Services Report (2013) and upon which the Appellants opportunistically seize, is, to the Appellant’s knowledge and upon the information available to the Director-General as well as before the Water Tribunal, incomplete and cannot be relied upon.

Ad paragraph 24 thereof:

- 106.** The outdated Natural Scientific Services Report (2013) has already been discussed in **paragraph 20 above** and as a result thereof the conclusions drawn in that report, with regard to the alleged impact of underground mining on surface water resources, cannot be relied upon because it creates false impressions.
- 107.** As was pointed out above, this conclusion in the Natural Scientific Services Report (2013) was based on the preliminary groundwater model prepared by another specialist and the following assumption (which later turned out to be outdated):⁶⁵

“The shallow and deep aquifers are hydraulically connected. Recharge of the deeper aquifers is expected to occur along the few fracture systems which connect the deeper aquifer to shallow groundwater bodies or directly to the surface.”

This hydraulic connectivity was demonstrated to be very limited in the Delta H report and not as extensive as was assumed in the Natural Scientific Services Report (2013): as pointed out in the Scientific Aquatic Services Assessment Report (2015), the updated groundwater model indicates limited connectivity between the mine strata (deep aquifer) and the non-mined geology (shallow aquifer); moreover, the de-watering of the wetlands will be minor due to the

⁶⁵ p. 231.

perched nature of the wetlands.⁶⁶

Ad paragraph 25 *in fin* thereof:

108. The outdated Natural Scientific Services Report (2013) has already been discussed in **paragraph 20 above**.

109. The information recorded in the Integrated Water and Waste Management Plan (2015) and in the Environmental Impact Assessment Report put all of the available information in its proper perspective, having regard to site-specific information and observations as well as the implications of the inappropriate scales used in certain instruments.

Ad paragraph 25.1 thereof:

110. With regard to paragraph 25.1.1 of the Supporting Submission:

110.1 we have already dealt with paragraph 23.3, 23.4 and 23.5 of the Supporting Submission and the Natural Scientific Services Report (2013) has been discussed in **paragraph 20 above**.

110.2 the Scientific Aquatic Services Assessment Report (2015) found some wetlands to have Category B and Category C status as far as Present

⁶⁶ See the Scientific Aquatic Services Assessment Report (2015) p. 55 and p. 68.

Ecological State was concerned.⁶⁷

110.3 the same report states that “... *although the WET-Health assessments show that Wetland Systems 1-4 are deemed to be in a PES Category A, the methodology does not make allowances for all on-site observations of significance and therefore it is the opinion of the ecologists that whilst wetland resources located in the higher altitude, less inaccessible areas are likely to be in a PES Category A, the wetland resources in the lower-lying areas have undergone a greater degree of modification and are therefore more likely to be a PES Category B or potentially Category C depending on site-specific impacts*”,⁶⁸

110.4 the findings of the Scientific Aquatic Services Assessment Report (2015) was based on actual field work and very intensive on-site mapping to delineate the wetlands in the surface area footprint;

110.5 the Natural Scientific Services Report (2013) took into account a surface infrastructure footprint of 80 hectares as originally planned and which also accommodated not only a coal washing plant but also a coal discard stockpile with high potential environmental impacts, but the surface infrastructure footprint was then reduced to only 22.4 hectares (of which 12.1 hectares overlap with wetlands already disturbed with very little

⁶⁷ p. 64.

⁶⁸ p. 65.

conservation significance) by excluding these sources of high potential environmental impacts and re-engineering the layout so as to have the smallest possible impact on the wetlands⁶⁹ - the assessment and recommendations of the Natural Scientific Services Report (2013) were thus based on dated information and therefore no longer fully relevant or completely reliable;

110.6 none of the cited reports stated that the wetlands have national and international importance: although they score high on the scoring system used for sensitivity and ecological importance on site, they score low on importance for water supply for human use;⁷⁰

110.7 furthermore, the fact that these levels of ecosystem services are supplied also indicates a high level of resilience as demonstrated by the recovery of ecosystem in the previously ploughed areas;⁷¹

110.8 although the current impacts on the site in question are fairly low, it is not factually correct that the wetlands in this area are “*natural and unmodified*”: this area and the wetlands therein are currently being managed for grazing and not for wetland conservation purposes with the farmers burning the area to get better grazing on a frequent basis; and

⁶⁹ See Integrated Water and Waste Management Plan (2015) p. 13 (figure 2-1).

⁷⁰ See the Natural Scientific Services Report (2013) p. 201.

⁷¹ See the Scientific Aquatic Services Assessment Report (2015) p. 67.

110.9 lastly, the mitigation measures and the limited impact from the underground mining operation would not lead to any significant regional impact on the ecosystem services supplied by the wetlands.

111. With regard to paragraph 25.1.2 of the Supporting Submission:

111.1 we repeat what has been stated in **paragraph 109 above**;

111.2 we repeat what has been stated in **paragraph 20 above** with regard to the Natural Scientific Services Report (2013) and we repeat that any alleged "*findings*" are suspect;

111.3 the labelling of the impact of the removal of vegetation and levelling of the surface footprint as "*long-term*" is arbitrary: the term itself is inherently relative - the planned life-of-mine of 15 years is not very long in the bigger scheme of eco-system evolution but is in fact a relatively short period;

111.4 the site can be fully, comprehensively and successfully rehabilitated after the decommissioning of the Yzermyn Project - this is evident from the recovery of the ecosystem on the site after the ploughing thereof and is supported not only by the recommendations of specialists but also the exponential growth in scientific knowledge and technology on measures of mitigation and rehabilitation;

111.5 the main recommended mitigation measure by the Natural Scientific Services Report (2013) is to avoid all areas of very high and high sensitivity: this recommendation has been followed with the reduction of the surface area required for infrastructure (from 80 hectares to 22.4 ha hectares) and the re-engineering of the infrastructure to fall into non-wetland areas and previously disturbed wetlands (with very little, if any, conservation significance) - the main mitigation measure cited from that report having been implemented, the whole *ratio* for the “*no go recommendation*” has fallen away;

111.6 also to be noted is that the surface infrastructure as considered by the Natural Scientific Services Report (2013) and relied upon by the Appellants is different from the surface infrastructure as finally approved by other authorities and upon which the application for the Water Use Licence is premised;

111.7 the loss of various vegetation communities in the surface footprint as referred to in the Natural Scientific Services Report (2013) firstly referred to the earlier surface footprint and secondly was based on a labelling exercise without any regard for site-specific facts and circumstances: the Scientific Aquatic Services Assessment Report (2015)⁷² stated the actual facts (own underlining added for the sake of emphasis):

⁷²

p. @.

“The hillslope seep wetlands located within the proposed surface infrastructure (indicated in Figure 16 as “S1” and “S2”) were then assessed in detail during the May 2015 study, as these wetlands will be directly impacted by the proposed mining activities. These wetlands are best defined as hillslope seeps which are highly marginal and due to the nature of the wetlands forming a temporary wetland/moist grassland mosaic. The variation from the surrounding terrestrial areas is extremely limited and no significant niche habitat is created.”

Accordingly no threatened vegetation communities will be lost and if any conservation-important species is found inside the surface infrastructure footprint area, it will also be relocated in terms of standard practice and protocols.

112. On the basis of the foregoing and of site-specific observations:

112.1 the Environmental Impact Assessment Report stated that construction of the proposed surface infrastructure will result in removal of vegetation but also explained that the ecosystem is fragmented in the proposed area of the surface infrastructure disturbance;

112.2 the Integrated Water and Waste Management Plan (2015) stated that the surface infrastructure site layout has been selected in an area within previously disturbed, marginal and degraded seep wetlands;

which statements are **(1)** factually correct and **(2)** consistent with an overall and

intelligent reading of the relevant reports as a whole and in their proper context as well as perspective.

113. This paragraph is an exercise in nitpicking by the Appellants.

Ad footnote 37 thereof:

114. The Appellants also rely on the occurrence of the White Stork and the Common Quail "*in the precise area where the surface infrastructure is to be placed*", on the basis of which they conclude that the authorisation of a water use "*will*" negatively impact on the species is in conflict with international obligations - this is, to say the least, far-fetched if not mendacious.

115. **Firstly**, in terms of the Convention on the Conservation of Migratory Species of Wild Animals both the White Stork and the Common Quail are classified as a specie of least concern.

116. **Secondly**, these occurrences are recorded for an area known as a pentad, which is a block of 9 km x 9 km (8,100 hectares), whilst the surface footprint is a mere 22.4 hectares (0.28% of a pentad).

117. **Thirdly**, the White Stork (a least concern specie) has a 17% reporting rate for the affected pentad in the whole of the study area while the Common Quail (also least concern specie) has a 17% reporting rate for the pentad in which the

surface infrastructure is planned: this means that only 17 out of each 100 reports from the relevant pentad make mention of these two bird species respectively.

118. **Fourthly**, there is no empirical or other basis for the unfounded claim that the authorisation of these water uses will have any negative impact on these birds.
119. **Lastly**, these birds are migratory and the surface infrastructure location will have nearly no impact on them at all, demonstrated by the fact that the Natural Scientific Services Report (2013) did not even mention them in the main write-up of the report.

Ad paragraph 25.2 thereof:

120. With regard to paragraph 25.2.1 of the Supporting Submission, we repeat what has been stated in **paragraph 51-53 above**.
121. With regard to paragraph 25.2.2 of the Supporting Submission, we repeat what has been stated in **paragraph 54-56 above**.
122. With regard to paragraph 25.2.3 of the Supporting Submission we repeat what has been stated in **paragraph 57-58 above**; in addition:

122.1 the Natural Scientific Services Report (2013) referred to an outdated

groundwater report⁷³ which stated the following:

“Model simulations indicate that groundwater contamination will move from the mine workings in a north and northeast direction in the deeper fractured rock aquifer. The plume may extend more than 2km down gradient of the mining operations ... Simulations considered the inferred faults to act as preferential paths of groundwater flow. This impact is assessed to be of medium environmental significance.”;

122.2 this model, as was pointed out, assumed a direct connectivity between the shallow aquifer and the deep aquifer whilst in fact that connectivity is very limited;

122.3 however, importantly and totally left out of account by the Appellants is the fact that there is a water divide between the mining area of the Yzermyn Project and the Freshwater Eco-system Priority Area wetlands, which makes it improbable that these wetlands will be impacted on at all (whether by de-watering or decant);

122.4 the modelled cones of depression are also not extending as far as the Freshwater Eco-system Priority Area wetlands, based on the updated model by Delta H, and is unlikely to impact on these wetlands.

We point out that, not even with the larger surface development footprint as was the initial assumption of the WSP groundwater study, was the potential impact

⁷³

See WSP Geohydrology Impact Assessment (2013) p. 20.

assessed as being of “*high environmental significance*”: in fact, subsequent thereto to the size of the surface development footprint was reduced to some 25% of the initial footprint and the severity of any potential impact was further reduced by the removal of activities from that footprint (such as the discard dump) with a significant potential impact.

- 123.** In the result the propositions advanced in this paragraph is again an exercise in nitpicking and selective reliance on information.

Ad paragraph 25.3 thereof:

- 124.** The statement in the Environmental Impact Assessment Report⁷⁴ is to the effect that the most significant feature in terms of the Freshwater Priority Area is the habitat for fish but, because the system has its origin in the Freshwater Priority Area wetlands in question, it is unlikely that the underground mining or the reduced surface footprint will have any significant impact on the fish population.

- 125.** We support that statement without qualification.

- 126.** Also the Natural Scientific Services Report (2013) rated the impact on migration route/breeding and feeding site for wetland species as very low;⁷⁵ however, even that rating is not reliable in view of the outdated nature of that report already

⁷⁴ p. 209.

⁷⁵ p. 200.

mentioned and discussed in **paragraph 20 above**.

- 127.** The independent water model resulting from the revised study by Delta H and used in the Scientific Aquatic Services Assessment Report (2015) evidenced that the shallow aquifers and the deep aquifers were not significantly connected and, as explained in **paragraph 103 above**, the firm Natural Scientific Services then qualified its view that the impacts should make the Yzermyn Project unfeasible if not mitigated efficiently: the mitigation measures were listed in the Environmental Impact Assessment Report and in the Integrated Water and Waste Management Plan (2015), showing that potential contamination and possible streamflow reduction will be prevented to such an extent that the fish species of concern will not be affected by the Yzermyn Project.
- 128.** In the result there is no contradiction between the contents of the Environmental Impact Assessment Report and the outdated ecological assessment in the Natural Scientific Services Report (2013) - what is more, the Appellants had an opportunity during the public participation process to deal with the water model resulting from the revised study by Delta H and used in the Scientific Aquatic Services Assessment Report (2015), **or commission an assessment report and field study for the purposes of this administrative appeal which is in the nature of a complete re-hearing on the merits**, but elected not to do so: instead we are facing opportunistic nitpicking.

Ad paragraph 25.4 thereof:

- 129.** The statement in the Environmental Impact Assessment Report⁷⁶ with regard to what the specialist studies say about the presence or absence of sensitive species in the surface footprint is factually correct: the biodiversity assessment of the specialists studies record the information and, with closer inspection of the surface disturbance areas, the conservation-important species were not identified on the area planned for the surface footprint (an area that was mostly previously disturbed and of very little conservation).⁷⁷
- 130.** With regard to the Natural Scientific Services Report (2013), we repeat what has been stated in **paragraph 9.2, 20 and 110.7 above.**
- 131.** In the result the contents of the Environmental Impact Assessment Report and the alleged “*findings*” of the earlier ecological assessment in the Natural Scientific Services Report (2013) are in fact reconcilable: the proposition of the Appellants to the contrary relies on an outdated report with a different scope and false assumptions to reason that the Environmental Impact Assessment Report is not aligned with the Natural Scientific Services Report (2013) but that is obvious and they cannot be so aligned for reasons which are equally obvious and, moreover, for reasons of which the Appellants are aware.

⁷⁶ p. 7.

⁷⁷ p. 393.

Ad paragraph 26 thereof:

132. The wetland delineation letter:⁷⁸

132.1 was based on field work done on-site by the wetland specialist;

132.2 was incorporated into the Scientific Aquatic Services Assessment Report (2015) as part of the specialist reports relied upon;

132.3 records what is evident on site: from a site inspection it was clear that the site was previously ploughed and this is corroborated by further evidence available as aerial photographs;

132.4 resulted from a request by officials of the Department to have the wetland boundaries for the surface infrastructure layout verified by a wetland specialists and specifically mapped with the help of accurate surveying by a registered surveyor, prompting the field work that was described in the letter and later incorporated into the Scientific Aquatic Services Assessment Report (2015); and

132.5 together with other reports, studies and information informed the Environmental Impact Assessment Report as well as the Integrated Water and Waste Management Plan (2015).

⁷⁸ See the Wetland Delineation Letter of 28 April 2015.

133. With regard to paragraph 26.1 of the Supporting Submission, the GCS Review was a desk-top review without the benefit of even a site inspection, second-guessing everyone else from an ivory tower.
134. With regard to paragraph 26.2 of the Supporting Submission, the mere length of a document does not stand in any proportion to its usefulness.
135. With regard to paragraph 26.3 of the Supporting Submission, we have already shown how outdated the assessments of the Natural Scientific Services Report (2013) were because of the changes in the proposed Yzermyn Project since the writing thereof.

Ad paragraph 27 thereof:

136. The proposition by the Appellants that the Yzermyn Project falls within the Enkangala Drakensberg Strategic Water Source Area is false.
137. We repeat what has been stated in **paragraph 59-61 above**.
138. There is no factual basis for any claim or suggestion that the Yzermyn Project will disrupt or even impact upon the water supply from any Strategic Water Source Area to the economy in any material or significant manner, or at all: it is simply irrational, unreasonable and completely irresponsible to even hint that the Yzermyn Project will effectively “*turn off the taps*” - this is absolute nonsense.

Ad paragraph 28 thereof:

- 139.** From all of the above it is evident that the Appellants “*displayed an obsessive attention to peripheral facts and factoids*” and their Supporting Submission “*raise speculation to the level of fact and thereafter raise argument based on the speculation*”.⁷⁹ the application for a Water Use Licence did not provide “*inadequate and inaccurate information*” about the alleged environmental sensitivity, alleged vulnerability and alleged importance of the Yzermyn Project Area and its surrounds to the Director-General.
- 140.** There was thus no failure on the part of the Director-General to adequately take into account the strategic importance of the water resources in question and their allegedly current efficient and beneficial use in the public interest as required in terms of section 27(1)(c) of the NWA: **(1)** the true strategic importance of these water resources (or rather the lack thereof) has been demonstrated; **(2)** the historically adverse and prejudicial use of the wetlands in the surface footprint for agricultural purposes has been demonstrated; **(3)** the absence of any significant impacts on the various water resources by or in the area of the Yzermyn Project has been demonstrated; and **(4)** it is also in the public interest that the mining-related water uses in respect of these water resources, subject to proper mitigation measures and rehabilitation, be authorised for the achievement of socio-economic development, the alleviation of poverty and the creation of job opportunities.

⁷⁹ See *Van Zyl v Government of Republic of South Africa* 2008 (3) SA 294 (SCA) par [10].

141. In fact, in our respectful submission the Director-General had accurate and more than adequate information (when compared to other licence applications) upon which to make a decision.

Ad paragraph 29 and 30 thereof:

142. It is also not correct that the Director-General failed to appreciate the “*severity of the impacts*” of the water-uses that were authorised.

143. **Firstly**, the alleged “*severity of the impacts*” has been misrepresented by the Appellants for the reasons and on the grounds already dealt with but in general the Appellants (1) mainly relied upon the outdated Natural Scientific Services Report (2013)⁸⁰ and (2) relied upon the application of large-scale instruments to a relatively small site (disregarding any site-specific facts and circumstances) without any understanding or even an acknowledgement of the implications for assessment and evaluation resulting from the difference in scale.

144. **Secondly**, any streamflow reduction from the mining operation will be negligible even on the WSP Hydrology Report (2013):

144.1 In the winter months (May to September) the Yzermyn Project is expected not to have a significant impact on the mean monthly runoff for the direct footprint.

⁸⁰ See paragraph 20 above.

- 144.2** In the months of June, July and August the Yzermyn Project is expected not to have any impact on the monthly mean runoff from the direct footprint.
- 144.3** Under dry conditions a decrease in the monthly mean runoff ranging from 0.08% to 0.23% is expected for the summer months (October to April) but for the rest of the winter months (May to September) there is no impact expected for the total Quaternary Catchment W51A in respect of the Assegaai-river.
- 144.4** Under median conditions a decrease in the monthly mean runoff ranging from 0.05% to 0.09% is expected for the majority of the year (September to May), with an exception of winter months (June to August) where no impact is expected for the total Quaternary Catchment W51A in respect of the Assegaai-river.
- 144.5** Under wet conditions there is expected to be a decrease in the monthly mean runoff ranging from 0.01% to 0.09% in all months for the total Quaternary Catchment W51A in respect of the Assegaai-river.
- 145.** **Thirdly**, the lowering of the water table in the Yzermyn Project Area will not necessarily reduce available water supply to communities but if that should happen, the mitigation measure for this in the Integrated Water and Waste Management Plan (2015) is that Atha-Africa will then supply water to affected

communities.

146. Lastly, the available facts have already demonstrated that the site can be rehabilitated to its current state upon the conclusion of mining operations: the remarkable ecosystem recovery of the ploughed fields in the Yzermyn Project Area is physical proof of this.

147. Far from showing a lack of appreciation of the impacts of the authorised water uses, the various conditions imposed upon Atha-Africa in the Water Use Licence by the Director-General are evidence that those impacts were properly appreciated and the necessary steps taken to avoid those impacts and, where they could not be altogether avoided, to minimise and remedy those impacts.

Ad paragraph 31 thereof:

148. The propositions advance in this paragraph are not correct; they are, in fact, in the nature of a statement of conclusion or opinion which, on the one hand, is not supported by any evidence of primary facts and, on the other hand, is directly contradicted by the available evidential material.

149. Firstly, Delta H in accordance with best practice:

149.1 used a numerical groundwater flow model to predict the impacts of mine inflows on the shallow weathered and deep fractured Karoo aquifers, in

other words the potential de-watering of aquifers;

149.2 the data used for the model development, the model setup, the calibration and application were described in detail to enable potential reviewers an independent evaluation thereof;

149.3 the potential risks of shallow aquifer de-watering were adequately and clearly outlined as follows:

“Groundwater dependant eco-systems and yields of (water supply) springs located within the significant zone of dewatering of the shallow aquifer, limited to the site boundaries, could be negatively impacted and some may dry up during the life of mine.”;

149.4 similarly, Delta H clearly stated that the mine is likely to decant post-closure with decant rates estimated between 1 and 6 l/s and sulphate concentrations in the order of 1000 mg/l (based on analogue data from Hlobane);

149.5 the associated uncertainty was highlighted as “*low confidence*” and continuous monitoring of mine inflows and associated qualities recommended during life-of-mine to increase the confidence in the predictions and to better inform closure planning;

149.6 a review of the 2014-report of Delta H, by Prof Dennis, stated accordingly **(1)** that Delta H documented all data used in the study, together with data

sources and deficiencies; **(2)** that it is important to note that there are always deficiencies; and **(3)** that the acid rock drainage assessment was conducted correctly and according to guidelines.

150. **Secondly** the Integrated Water and Waste Management Plan (2015), which was part of the application for a Water Use Licence, **(1)** defined the relevant water users; **(2)** clearly described the potential impacts on water uses in terms of quality⁸¹ and in terms of quantity,⁸² and **(3)** provided a proper motivation pertaining to section 27(1)(f) of the NWA.⁸³

151. We therefore refute the sweeping statement that inadequate and incorrect information was included in the application for a Water Use Licence, or that the Director-General failed to take adequate account of the section 27(1)(f)-consideration (the likely effect of the water use to be authorised on the water resources and on other water users).

Ad paragraph 32 thereof:

152. The description by the Appellants in this paragraph (or their understanding) of the conceptualised aquifers is wrong.

⁸¹ p. 63.

⁸² p. 155-156.

⁸³ p. 242.

- 153.** The three aquifer systems conceptualised in the two groundwater studies were three superimposed aquifer systems in the Mpumalanga coal fields, namely:
- the upper weathered Karoo aquifer;
 - the fractured Karoo aquifer; and
 - the fractured pre-Karoo aquifer below the Ecca Sediments.⁸⁴

The Appellants wrongly refer to “*localized perched aquifers*” as one of the aquifers so conceptualised and described by the groundwater assessment.

- 154.** The concept of “*localized perched aquifers*” in or near the surface footprint did not come to the fore during the groundwater assessment as a separate aquifer system but was later developed as a theory to explain the functioning of the seep wetlands specifically as observed on site.⁸⁵

Ad paragraph 35 thereof:

- 155.** The two groundwater assessments also did not come up with the same model because the WSP Groundwater Assessment assumed a strong hydraulic connectivity between the shallow aquifers and the deep aquifers (without any corroborating evidence to this effect and using the MODFLOW software which cannot split the water levels between the different aquifers) whilst the Delta H Groundwater Assessment showed that the connectivity was in fact very limited (based upon ample empirical evidence and corroboration in support of the

⁸⁴ See the Delta H Report p. 12.

⁸⁵ See paragraph 7.3, 9.2, 11, 20.3, 31.3 and 110.7 above.

development of its groundwater model with the SPRING software).

- 156.** In the result these two groundwater assessments also differed fundamentally regarding the consequences of potential de-watering, with the modelled contours of the cone of depression in the shallow aquifers as well as the cone of depression in the deep aquifers shown by the WSP Groundwater Assessment to be much larger than the modelled contours from the model of the Delta H Groundwater Assessment and they are not comparable.

Ad paragraph 36 (including the subparagraphs) thereof:

- 157.** We repeat that the Natural Scientific Services Report (2013) is outdated and unreliable for the reasons and circumstances discussed in **paragraph 20 above**: that report described a system or model assuming incorrectly great connectivity between the shallow aquifers and the deep aquifers (which was incorrect) and that report also did not take into account the localised perched conditions as described in **paragraph 153 above** - in view thereof that this whole paragraph (with all of its propositions in the various subparagraphs) relies squarely upon the Natural Scientific Services Report (2013), nothing advanced in this whole paragraph is worthy of any consideration.
- 158.** The localised perched conditions are in any event most likely driven by rain and surface water so that any draw-down (or cone of depression in the shallow

aquifers or the deep aquifers) will not significantly affect the wetlands:⁸⁶ **this is also evidenced on site by the current existence of functioning wetlands above the existing and historical mining adits within 1.2 kilometre of the planned mining site** - the assumption in the Natural Scientific Services Report (2013) that the wetlands within the cone of depression will be impacted upon and may possibly dry out is therefore misconceived and unacceptable speculation whilst the inferences drawn in the Delta H Groundwater Assessment is not only consistent with all the known facts but also the most plausible to be drawn under the circumstances.

- 159.** The recharge or water-input into the hill-slope seep wetlands will largely be from rain and will likely not be affected by the mine.
- 160.** Furthermore the alleged “*high significance on biodiversity*” is completely overstated in paragraph 36.2 of the Supporting Submission: **firstly**, a too large decrease in water input into the wetlands was assumed because of the use of an outdated groundwater model for groundwater assessment; **secondly**, even if some 40% of the total surface for the Yzermyn Project may constitute wetland habitat, not all of the wetlands within this area is shown to be affected by the cones of depression of the shallow aquifers and/or the deep aquifers and those wetlands affected within the surface footprint was shown to be mostly previously disturbed and of very little conservation significance; **thirdly**, the scope and ambit or degree of the effect on those wetlands that are to be affected is with

⁸⁶ See Scientific Aquatic Services Assessment Report (2015) p. 68.

respect not that significant to justify the preposterous suggestion that 40% of the wetlands in this area is at risk of drying up; **fourthly**, the water divide between the Yzermyn Project Area and the area located beyond it was left out of account; and **lastly** the effect of mitigation measures to avoid, minimise or remedy any impact on the wetlands or the biodiversity supported by these wetlands should also be taken into account instead of being ignored or dismissed.

- 161.** We repeat what we have said in **paragraph 53-58 and 121 above**: although the cones of depression will extend beyond the directly mined-out area of the Yzermyn Project, it is very unlikely that any Freshwater Priority Area wetlands will be impacted upon because a water divide exists between the mining area and the Freshwater Priority Area wetlands (and there is no Freshwater Priority Area in the Yzermyn Project Area) - the impact assessment in the groundwater report by Delta H indicated only slightly impacted areas outside the Yzermyn Project Area with the major draw-down only occurring in the direct vicinity of the mining, and only close to the geological intrusions.
- 162.** We have already dealt with the remaining allegations contained in this paragraph and its subparagraphs: we repeat that the “*no go recommendation*” by the Natural Scientific Services Report (2013) has fallen by the wayside and the view of this firm on the feasibility of mitigation measures has also changed.⁸⁷

⁸⁷ See paragraph 103 above.

Ad paragraph 37 and 38 thereof:

163. Delta H, a groundwater specialist, did make the assumption in its groundwater assessment of a continuous, un-fractured dolerite sill between the shallow aquifers and the deep aquifers but the firm Natural Scientific Services is neither a groundwater specialist nor did it perform a groundwater assessment but conducted an ecological assessment based on outdated groundwater modelling:

163.1 Firstly, to proof the spatial continuity of the sill and its hydraulic properties (for example, to rule out that it is dissected locally by faulting or a fault-line) would require to either excavate the entire sill or to drill a dense grid of boreholes through the sill, either of which would inevitably result in the destruction of the very properties one wishes to investigate and would lead to more damage to the wetlands.

163.2 Secondly, the on-site observation in the existing mining adits shows the assumptions to be close to correct, since virtually no water ingress into these existing mining adits have been noted at this location and this confirms the very limited connectivity between the two aquifers.

163.3 Thirdly, the model in question was based on what was realistically seen on site and this model is the best available for the data available: Delta H based their model on reasonable conductivity ranges for the type of rock in question, located at the Yzermyn Project Site and observed at other

sites, as reported in the literature; to try and have a better model on a green fields project is absurd - in this regard the Appellants have shown that hindsight is not an exact science.

163.4 Fourthly, the uncertainty inherent in the assumptions upon which the model is based, was addressed in a sensitivity study according to standard practice: dense rock layers will always have a high sensitivity for hydraulic conductivity but such a sensitivity analysis works both ways in that substantially less de-watering will take place if the conductivities or expected inflows are even lower than assumed – this is why continuous monitoring and updating of the model is essential to limit uncertainties as the development continues with caution and with that realisation that human endeavour does not proceed on the basis of absolute certainty.

163.5 Fifthly, the suggestion in the GCS Review that a so-called Class 3 model should be developed for the site is either disingenuous or it shows a complete lack of practical experience; such a model would require amongst others:

- the use of observations of the key modelling outcomes in calibration, in other words model calibration takes place against observed mine inflows and associated draw-downs (the key modelling outcomes) for a mine which is yet to be developed (sic);
- the model predictive time frame is less than 3 times the duration of transient calibration, in other words a transient calibration over

5 years for a life of mine of 15 years, or for post closure simulations (100 years) over 33 years, again, for a proposed and currently non-existent mine development.

It is therefore simply impossible in practice to develop the so-called Class 3 model for the Yzermyn Project or, for that matter, for any proposed mine development Project and it is for these reasons that Delta H recommended to increase the model confidence and refine the predictions once site specific monitoring data become available.

163.6 In the result the groundwater assessment by Delta H cannot be faulted, either in principle or on detail.

164. On the other hand, the unqualified but selective reliance by the Appellants on the assumption by the Natural Scientific Services Report (2013) - that the wetlands within the cones of depression of the shallow aquifer and of the deep aquifer would be impacted upon and may possibly dry out - is not supported by the available evidence:

164.1 Firstly, we repeat what is stated in **paragraph 20 above** concerning the outdated Natural Scientific Services Report (2013).

164.2 Secondly, the ecological assessment in the Natural Scientific Services Report (2013) does not specify which wetlands are at stake and does not differentiate between the hydro-geomorphological units: the source of

water supplying the moist grassland/hillslope seeps is known, namely the localised perched water tables that feed them, and the springs in the vicinity are obviously feeding large volumes of water to the valley bottoms but some of those springs do dry up in winter (as stated in the Environmental Impact Assessment Report).

164.3 Thirdly, in view of the totality of the available information one cannot assume that the wetlands within the cones of depression of the shallow aquifer and the deep aquifer will be impacted upon, and there is even less justification to assume that these wetlands may possibly dry out.

165. There is no merit in the nitpicking criticisms of the Appellants.

Ad paragraph 39 and 40 thereof:

166. We ask the rhetorical question how one should go about to assess grouting as a mitigating measure under the facts and circumstances of this green fields project: it is easy to sit on the sideline in an academic ivory tower but from a practical and commonsense perspective the propositions advanced in these paragraphs by the Appellants are nonsensical.

167. The groundwater assessment by Delta H provided, for the purposes of the sensitivity analysis, a range of inflows associated with the different assumed

conductivities and grouting scenarios will give precisely the same result: lower inflow will have less draw-down.

168. The suggestion that the success of grouting should be simulated with a groundwater flow model is equally nonsensical: grouting of mine inflows describes a mitigation measure by means whereof grouting material (for example a cement mix) is injected into a single fissure/fracture/fault encountered during mining or cover-drilling with the result that it is not possible for the success of grouting to be simulated with a groundwater model: in such a model the permeability reduction due to grouting would be a model input parameter or assumption - furthermore, if mine inflows are reduced by grouting, so are the de-watering impacts which are obviously a result of the de-watering by the mine due to mine inflows.

169. Common sense and experience dictate that grouting will reduce the de-watering impacts as and when a fissure/fracture/fault is encountered during mining operations: in the course of ordinary human experience, plugging a hole results in the prevention of a water leak.

Ad paragraph 41, 42 and 43 thereof:

170. We repeat what is stated in **paragraph 20 above** concerning the outdated Natural Scientific Services Report (2013).

171. We repeat what is stated in **paragraph 143 above** concerning the earlier WSP Hydrology Report (2013) upon which the ecological assessment of the Natural Scientific Services Report (2013) is premised.
172. Furthermore a reduction of water flow in wetlands does not directly equate to a flow reduction in the Assegai-river as wetlands themselves evapotranspire water; in addition mine inflows beyond the authorised usage are treated to acceptable standards and discharged back into the environment.
173. Armchair criticism cannot change the fact that more insight into the actual groundwater conditions and inflows can only be gathered during actual operations: the best information available was provided to the Director-General.
174. In the result the anticipated de-watering impacts of the Yzermyn Project are not the alarmist projection of the Appellants based on information and reports selectively presented to the Water Tribunal out of context and from the wrong perspective: the fact is that the stream flow reduction from the mining operation will be negligible and there was no inadequate or inaccurate information provided to the Director-General in this regard - the Director-General had and the Water Tribunal has the best available information under the circumstances.

Ad paragraph 45 thereof:

175. We must point out that the description by the Appellants in this paragraph of

where Acid Mine Drainage comes from or is formed, shows the complete lack of understanding on the part of the Appellants of this issue. Acid Mine Drainage is not a contaminant released during the mining process.

- 176.** Acid Mine Drainage refers to acid rock drainage, neutral mine drainage and saline drainage, where contaminants are released from a solid and dissolved in liquids by sulphide mineral oxidation. This is applicable to all commodities (for example gold, uranium, coal) and from cradle to grave (that is, from the stage of prospecting to the post-closure phase) of a mine. Acid Mine Drainage was for example also encountered during a road construction in a mining area, exposing sulphide bearing rock to the atmosphere. During mining operations this process of sulphide mineral oxidation and salt mobilisation is constrained by the extraction of excess water. After mine closure, the water extraction he stopped and salts can accumulate in this water, causing decant. The decant, if contaminated, will be treated to acceptable standards before being discharged back into the environment.

Ad paragraph 46 thereof:

- 177.** We take note of the concern that was already identified in the assessment report and in respect of which a mitigation measure was proposed, namely to treat the decant water before returning it to the water resource: therefore the concern was noted and addressed.

Ad paragraph 47.1 thereof:

- 178.** According to the Department and the Director-General, as set out in the Record of Recommendation and Decision,⁸⁸ the Assegaii-river was regarded as a Category C River and not as Category A or Category B: this is precisely the problem with large-scale instruments being used to classify ecological resources without any consideration of site-specific facts and features.
- 179.** In any event the treatment of any contaminated or polluted water, before even reaching the Assegaii-river, addresses this concern.
- 180.** In passing it is also worthy to note that there are a number of old mine adits that were used for past coal-mining in the upper reaches of the Assegaii-river and, despite them not even having been rehabilitated but simply left open and as is, the Natural Scientific Services Report (2013) reports that the current groundwater and surface quality within the region of the study area is good: this site-specific phenomenon confirms that the risk for Acid Mine Drainage and/or downstream pollution is very small (and it also confirms the limited connectivity between the shallow aquifer and the deep aquifer).

Ad paragraph 47.2 thereof:

- 181.** The proposition advanced in this paragraph by the Appellants assumes the

⁸⁸ See annexure 'B' of the Supporting Submission.

uncontrolled and untreated discharge of water, both of which are unfounded - Atha-Africa will mitigate and prevent any pollution from draining downstream: the discharge of contaminated water will be controlled and treated.

182. From a practical perspective the elevated position of the Yzermyn Project in the landscape also has a strategic implication: this assist in reducing diffuse points of contamination and, in the unlikely event of any pollution missed by the primary mitigation (of which the chances are very slim if not non-existent), such pollution can be treated not far downstream without affecting the rest of the catchment.

Ad paragraph 47.3 thereof:

183. The proposition in this paragraph assumes that there will be uncontrolled contamination of groundwater that will be allowed to impact untreated on the surface water quality downstream: all potential decant will be captured and treated to accepted quality before release.
184. **Also in this regard we have the benefit of an onsite “field laboratory” by way of the existing, un-rehabilitated coal mine adits on the Yzermyn Project Area - physically demonstrating that no Acid Mine Drainage or other pollution emanates or decants from this limited area.**

Ad paragraph 47.4 thereof:

185. Obviously a severe deterioration in water quality can lead to a dramatic decrease in aquatic biota and to a cessation of aquatic ecosystem functionality but the point of departure here is an assumption of a severe deterioration in water quality: **firstly**, the anticipated impacts are not so severe as portrayed and, **secondly**, to prevent any severe contamination of water, a mitigation measure is in place to capture and treat any contaminated water.

Ad paragraph 47.5 thereof:

186. The operative word here is “*can*” and not “*will*”: impacts of water contamination on faunal species can include certain aspects but even then there are some resilience also in these ecosystems that would help its recovery after some measure of disturbance; for this reason and following a preventative and/or precautionary approach, a mitigation measure is in place to capture and treat any contaminated water before release downstream.

Ad paragraph 47.6 thereof:

187. The Natural Scientific Services Report (2013) did express the view that the anticipated impact of decant of contaminated groundwater and the resultant impacts on surface water quality, wetlands, aquatic ecology and biodiversity “*is*” (sic) of high significance both with mitigation and without mitigation: the problem

though with the reliance by the Appellants on this view is that they do not provide the factual basis or motivation for this view.

188. We repeat what we have stated in **paragraph 20 above**: the Natural Scientific Services Report (2013) cannot be relied upon in isolation and in addition the following should be noted:

188.1 The view in the Natural Scientific Services Report (2013) is premised upon the false assumption of the uncontrolled discharge of untreated contaminated water from the Yzermyn Project.

188.2 Moreover and what should have been disclosed by the Appellants to the Water Tribunal, is that the said report was premised on a groundwater assessment model that simulated an unlined discard facility on site together with a coal washing plant – a significant source of pollution on that scenario: however, the coal washing plant and the associated discard facility have been removed from the planned surface infrastructure, which was reduced from 80 hectares to 22.4 hectares and re-engineered to achieve the minimum impact on already disturbed wetlands of minor conservation significance.

188.3 The decisive factor however (providing independent evidence), appears from **paragraph 182 above**: the existing, un-rehabilitated coal mine adits on the Yzermyn Project Area physically demonstrate that no Acid Mine

Drainage or other pollution emanates or decants from this site as a result of previous underground coal-mining.

189. We also repeat what we have stated in **paragraph 103 above**: after having been provided with an opportunity to comment upon the revised study and groundwater assessment by Delta H, the firm Natural Scientific Services commented that “*this impact, together with the impact of the decant, should both make the project unfeasible if not mitigated efficiently*” - the view that mitigation was allegedly impossible, was not repeated.

190. A simplified explanation is that of the underground mining operations and the mining void so created to be regarded as:

190.1 during the Life of Mine: the mine is in effect a “*sump*”, that is the void will attract water inflows and thereby capture any potential contamination; and

190.2 post mine closure: the void is in effect a “*main channel*”, that is the void will present a preferential flow path and thereby diverted any potential pollutants to the monitored or controlled outflow point at the adit.

In reality the situation is a bit more complex because diffuse egress of water through fractures and other discontinuities in the rock could potentially channel polluted water out of the mine workings: for this reason the extraction of water from the mine workings will maintain water levels below the environmentally

critical level so as to prevent this potential leakage; those fractures and other discontinuities can then also be grouted as a mitigation measure and an increase in water levels will then result in an equilibrium on both sides of the grouting, keeping it in place

- 191.** In other words, the underground mining operations and the mining void so created become an underground “*rock storage tank*” which reduces the opportunity for the diffuse migration of contaminated water all over the place but allows for the capturing and treatment of most contaminated water in a controlled environment: low permeability and/or limited connectivity works both ways – reducing water moving out of, just as it reduces water moving into, the underground areas of the mine.

Ad paragraph 48, 49 and 50 thereof:

- 192.** With regard to **paragraph 175-188 above**, it is with respect abundantly clear that there was no disregard whatsoever of any scientific evidence: this attack by the Appellants is exclusively based upon their misconceived and selective reliance on the Natural Scientific Services Report (2013), presented out of context and without taking into consideration all of the other scientific evidence or the site-specific observances.

Ad paragraph 51 thereof:

- 193.** The findings by the GCS Review (a mere desktop analysis of the work done by other specialists who had the benefit of actual field experience in the Yzermyn Project Area) are wholly unrealistic and out of touch with the totality of the available scientific evidence.
- 194.** In the **first place**, although the acid base accounting concluded that potentially acid generating rock were present in the Yzermyn Project Area - and therefore, following a preventative and precautionary approach, it is better to expect and plan for decant and budget for a water treatment plant (based on reverse osmosis technology) - the existing, un-rehabilitated coal mine adits on the Yzermyn Project Area physically demonstrate that no Acid Mine Drainage or other pollution emanates or decants from the previous underground coal-mining voids and there is no Acid Mine Drainage running downstream from these adits.
- 195.** In the **second place**, describing the post-closure mine water quality as likely to be "*characteristic*" of Acid Mine Drainage covers a range of scenarios meaning anything from slightly elevated concentrations of sulphate in water (which is not a problem at all) to low pH water with sulphate concentrations of over a 1000 ppm (which would be a serious problem) but the GCS Review simply assumed a worst case scenario directly in the face of the totality of the available scientific evidence.

196. In the third place Delta H did not simulate the anticipated contaminant plume from the underground mining operations because, on the one hand, it was beyond the scope of work and, on the other hand, such a simulation is numerically extremely difficult and unstable; however:

196.1 Delta H did emphasise the likelihood of decant from the underground mining operations and potentially unsealed prospecting boreholes which reflects a potentially direct link to receiving surface waters; Atha-Africa however confirmed that the correct drilling procedures were followed and that all the prospecting boreholes were sealed so that this possibility of a direct link can be discounted;

196.2 the mitigation measure of capturing and treating any contaminated water before release downstream will in any event limit the anticipated contaminant plume;

196.3 in the absence of a simulation of the anticipated contaminant plume, there is a rough indication of where any contaminated water could possibly migrate to: the migration would be just down-gradient of the major cones of draw-down, since these are the areas of high conductivity where water could flow but, as discussed in **paragraph 160 above**, the draw-down impacts will be limited to the site;

196.4 any consideration of the pathway of any contaminated groundwater to the

receiving surface water shows that the concentration of any contaminant is likely to be reduced in the pathway before entering the receiving surface water due to dilution by uncontaminated water; and

196.5 neither the Appellants nor the GCS Review did their own simulation of the anticipated contaminant plume but were content with armchair criticism.

197. In the **fourth place** we repeat what we have stated in **paragraph 162 above** regarding the hydrogeological characteristics of the dolerite sill conceptualised to be present between the shallow aquifer and the deep aquifer: **(1)** the discontinuities in the dolerite sill could also have a lower conductivity than the most realistic conductivity assumed for purposes of modelling, and **(2)**, the only way to establish more accurate data for the conductivity of the dolerite sill would have damaged the wetlands even more through drilling and this would compromise the integrity of the dolerite sill (thereby compromising and in fact destroying the hydrological functioning of the whole region) - surely common sense must prevail over idle speculation.

198. In the **fifth place** there was no need for any geochemical modelling or a site-specific assessment to “*determine*” the anticipated post-closure decant water qualities and quantities:

198.1 The worst case treatment options in other coal mines are known and therefore it is possible to plan or budget accordingly without any

geochemical modelling and without endeavouring to “*determine*” something which cannot be determined at this early stage: since the geochemical modelling of underground mine water qualities is also burdened with substantial assumptions and subsequent uncertainties, the use of analogue data from other mines targeting the same coal seams appears very reasonable for an initial conceptual design of the water treatment plant - using actual data that is available rather than modelled data prone to uncertainty.

198.2 A conceptual design for a water treatment plant at the early stages of a green fields project is so tentative and subject to so many amendments that it is hardly possible, and in fact nonsensical, to require a conceptual design of a water treatment plant more than stating the type of treatment that will be done and the order of magnitude capacity that such a plan would be treating at this stage of the development and, if the GCS Reviewers had any experience in this field, they would have known how nonsensical their statement is.

198.3 The mitigation measure is, to the knowledge of the Appellants,⁸⁹ to have a modular plant but apparently the relevance and importance of this was not appreciated in the GCS Review: this means that the water treatment plant can be extended by adding modules as and when needed.

⁸⁹ as appears from paragraph 49 of the Supporting Submission.

198.4 The appropriate technology of reverse osmosis (which is currently the most effective way of treating Acid Mine Drainage) will be used⁹⁰ but, with new technology being developed currently and in fact all the time in and for the mining industry, it could well be that a better option is available at the time of mine closure so that Atha-Africa will keep looking for better treatment options during the life-of- mine.

199. In the **sixth place** - assuming that the design of a water treatment plant can be finalised pre-mining, which is unrealistic - the design for a water treatment plant is an engineering design to be evaluated by an engineer if needed and it is, with respect, ludicrous of the Appellants and the GCS Review to suggest that the design of the modular water treatment plant should have been reviewed by any environmental specialist; in any event and in practice, there are hundreds of reverse osmosis water treatment plants running all over South Africa and we are not aware of any of them having been evaluated by environmental specialists - construction and operating costs of these plants are well documented and available from a variety of suppliers and consulting engineers in the country so that it is really not very difficult to work out the budget for a water treatment plant.

200. In the **seventh place** the mitigation measure of discharging water into the wetlands was brainstormed with the groundwater specialist, the wetlands specialist, the Environmental Assessment Practitioner and the rehabilitation

⁹⁰ See the Integrated Water and Waste Management Plan p. 20.

specialist present in a workshop where this mitigation measure was agreed to:⁹¹ again neither the Appellants nor the GCS Review did their own assessment of the environmental consequences of discharging the treated water in this manner but were content with armchair criticism whilst the common sense advantages are obvious - for example, maintaining water flow in the wetlands and making use of the ecosystem services thereof by allowing an additional natural filtering of the water already treated to remove contaminants as a further precautionary measure against pollution.

201. In the **eighth place** we have already dealt in detail with the low risk of Acid Mine Drainage and again we have the Appellants and the GCS Review not making any statement on what they would have suggested as an alternative mitigation measure but being content with armchair criticism: any realistic and reasonable review of all the available scientific information, instead of selective reliance or nitpicking, will show that the existing water quantity-related and quality-related risks and mitigation methods are in fact realistic, accurate and appropriate.

202. There is no merit in the armchair-criticism of the GCS Review and of the Appellants.

Ad paragraph 52 thereof:

203. This is an administrative appeal against the decision to approve and grant an

⁹¹ See Scientific Aquatic Services Assessment Report (2015) p. 100.

application for a Water Use Licence; this is not an administrative appeal or a reconsideration against an environmental authorisation for listed activities or for a mining work programme in terms of NEMA.

- 204.** The Brownlie Review, instead of a myopic peering at the Environmental Impact Assessment Report and selecting whatever suits the reviewer,⁹² should have taken the provisions of the Integrated Water and Waste Management Plan⁹³ into consideration: provision is made for a period of 10 years of monitoring for rehabilitation after mine closure (not for a period of 2 years only) and this is also reflected in section 16.1.2 of the Rehabilitation Plan - obviously data from the monitoring programme will inform the planning of Atha-Africa for the extension of the monitoring period, based on the results: theoretical and armchair criticism aside, the imperatives of practice and common sense demand a precautionary approach of adaptive management based on monitoring data because nobody has a crystal ball to look into the future.

Ad paragraph 53 thereof:

- 205.** From the preceding paragraphs it is with respect clear that the information in the application for a Water Use Licence by Atha-Africa, about the risks and consequences pertaining to the decant of contaminated groundwater and Acid Mine Drainage, was not inadequate or inaccurate; accordingly there is no

⁹² in this case a recommendation for monitoring for 2 two years after mine closure.

⁹³ p. 31.

foundation for the misconceived attack on the decision of the Director-General.

- 206.** The Director-General then had, and the Water Tribunal now has, the best available information under the circumstances on the basis of which to take an informed decision.

Ad paragraph 54 thereof:

- 207.** The relevant conditions of the Water Use Licence are in fact evidence of a proper evaluation and consideration, by the Director-General, of the risks and consequences pertaining to the decant of contaminated groundwater and Acid Mine Drainage.
- 208.** With regard to the condition on the riparian and in-stream habitat,⁹⁴ the suggested mitigation measures will ensure that this condition can be met and the Appellants advance no reason or circumstance why this will not be possible.
- 209.** With regard to the condition on the rehabilitation and management,⁹⁵ not only is it possible for this condition to be met but the resilience of the ecosystems in the surface footprint to recover is vividly proven by the current state of the previously-ploughed fields in the surface footprint: they recovered with no dedicated expert rehabilitation intervention.⁹⁶

⁹⁴ paragraph 54.1 of the Supporting Submission.

⁹⁵ paragraph 54.2 of the Supporting Submission.

⁹⁶ See Scientific Aquatic Services Assessment Report (2015) p. 67.

210. With regard to the condition for the protection of the wetlands,⁹⁷ this condition can be met with the mitigation measures already committed to by Atha-Africa.

211. In the result there was no failure of any kind by the Director-General to “sufficiently” consider the risks and consequences pertaining to the decant of contaminated groundwater and Acid Mine Drainage.

Ad paragraph 55 thereof:

212. We have already dealt with the false, selective, incorrect and out-of-context presentation of the underlying assumptions by the Appellant and we dispute that the conditions imposed in the Water Use Licence is out of touch with the scientific evidence and material that were before the Director-General and are now before the Water Tribunal.

213. The Scientific Aquatic Services also stated the following (although this has not been disclosed by the Appellants to the Water Tribunal):

“The potential for post-closure decant of water 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 the wetlands within the study area, but also on aquatic resources within the greater catchment with special mention of the Assegaai River. Should it be considered economically feasible to treat the decant water post-closure until water quality stabilizes, which could

⁹⁷ paragraph 54.3 of the Supporting Submission.

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, although the impacts on the wetland resources would remain high. In addition, extensive measures to prevent discharge and seepage including liner systems, cut-off trenches and dewatering boreholes should be investigated and implemented to minimize seepage to the receiving environment to the minimum. In addition the infrastructure required to access the resource must be kept to the absolute minimum. Furthermore, extensive mitigation must be applied during the construction and operational phases of the project to ensure that no impact takes place beyond the surface infrastructure footprint. In this regard particular mention is made of the management of surface water and the dirty water area of the mine footprint. Exceptionally strict monitoring throughout the life of the mine and post-closure is required in order to ensure the health and functioning of the wetlands is retained, and monitoring data must be utilised to proactively manage any identified emerging issues. The rehabilitation of the of the infrastructure during closure of the mine must take place in such a way as to ensure that the post closure land use objectives are met, which is envisaged to be protected wilderness. The wetland resources will therefore need to be rehabilitated in such a way as to support the larger wetland systems at the same level as those evident in the pre-mining condition. In order to meet this objective rehabilitation will need to be well planned and a suitably qualified wetland ecologist must form part of the closure and rehabilitation project team to guide the rehabilitation and closure objectives of the mine.”

Accordingly the opinion of the specialist was that mitigation can be effective and was also contemplated as such by the Director-General.

- 214.** We repeat what is been stated in **paragraph 109.5 and 186 above**: the Natural Scientific Services Report (2013) with its scepticism concerning a scenario with and without mitigation is premised upon a completely different groundwater

assessment scenario.

Ad paragraph 56, 57, 58 and 59 thereof:

- 215.** Instead of assisting the Water Tribunal in understanding what the cumulative impacts according to the Appellants are, the Appellants are again content to simply criticise the information provided in the application for the Water Use Licence as allegedly inadequate and allegedly inaccurate.
- 216.** **Firstly**, because the Loskop Coal Mine is an existing activity (in another watershed) any of the impacts thereof is already accounted for as part of the background monitoring and there is no need for its existence to be specified; furthermore the Loskop Coal Mine does not seem to have any measurable impact based on the specialists stating that everything is pristine and the monitoring results showing seemingly no impact.
- 217.** **Secondly**, this is a matter concerning an application for a Water Use Licence in respect of water uses in Quaternary Catchment W51A and not a debate on the impact or desirability of coal mining in the greater Southern Mpumalanga study region: the assumption of Atha-Africa was that there will not be any other mines opening up in Quaternary Catchment W51A and the perceived potential cumulative impacts in this regard are, on the one hand, based upon the unjustified assumption that coal mines will always have an uncontrollable impact on the environment with no mitigation possible and, on the other hand, based on

pure speculation - not all applications for prospecting rights are always successful, not all prospecting operations result in mining operations and, on the over-broad approach to cumulative impacts suggested by the Applicants, not a single further coal mine can be developed.

- 218.** Thirdly, not only was the impacts associated with other existing mining activities included in the assessment (as part of the background monitoring) but the latest groundwater model improved on the previous model to the extent that it has shown a reduced impact: the predicted decant volumes are lower than before although the basic mitigation measure for the decant is still the same.
- 219.** Accordingly it is evident that there were no inadequate and/or inaccurate information in the application for the Water Use Licence concerning cumulative impacts: in Quaternary Catchment W51A it is safe to state that the agriculture and forestry impacts will not significantly change and that very few, if any, new prospecting or mining rights will further be granted therein - from this perspective any consideration of unlikely and/or improbable additional impacts, cumulative to those already assessed, is negligible in Quaternary Catchment W51A.
- 220.** In conclusion we remind the Water Tribunal with respect that the concept of cumulative impacts is not only inherently relative but also fraught with uncertainty and speculative methodology.

Ad paragraph 60, 61, 62 and 63 thereof:

- 221.** The point of departure of the Appellants with this attack upon the decision of the Director-General is false: there was no fundamental lack of information about the anticipated impacts of the Yzermyn Project on downstream water users and, in any event, the main downstream use is to provide water to the Heyshope Dam for industrial use and the generation of electricity - accordingly it is incorrect to claim that there was inadequate information in the application for the Water Use Licence about impacts on downstream water users.
- 222.** **Firstly**, there is no allegation of what skills and expertise would have been needed to determine who is using what water downstream of the Yzermyn Project and how those downstream water users will be affected: EcoPartners is a reputable environmental consulting company in the industry and the accusation that it lacks the necessary expertise or experience of a specialist in this area is without any foundation.
- 223.** **Secondly**, the Brownlie Review is armchair criticism - where is the perfect Downstream Water Usage Report prepared by the Appellants or by Brownlie?
In any event:
- 223.1** the Downstream Water Usage Report was supposed to list downstream water users that could be impacted by the Yzermyn Project and the water uses they were engaging in - it served this purpose adequately;

223.2 it was not a requirement that the predicted effects on economic activities be quantified and there were in any event no predicted effects on economic activities to consider - also taking into account the mitigation measures for the Yzermyn Project, the downstream impacts will be negligible;

223.3 the springs in question are upstream and on the site of the Yzermyn Project, and are thus not part of the downstream study, with the hydrology reports indicating that little impact, related to downstream flow, is expected; and

223.4 no groundwater users exist in the area, confirmed by the local farmers, and groundwater recharge has been discussed in the groundwater assessment report by Delta H and would not impact downstream beyond the mining footprint.

224. **Thirdly**, the potential effect on downstream water uses is covered in the application for the Water Use Licence by:

- the new geohydrological study conducted by Delta H;
- an assessment of de-watering impacts by specialists and presented in the relevant reports;
- the identification of downstream water uses summarised in table format; and
- a discussion of the downstream water uses, also summarised and

presented in table format.

- 225.** Fourthly, it is not clear precisely what the Appellants have in mind with the reference to environmental impacts “*well beyond the mining area*” but, for reasons already stated, it has been shown that this is an exaggeration; in addition the Downstream Water Usage Report focussed on and covered the direct catchment of the Assegai-river and Mawandla-river, below the area of the Yzermyn Project up to the Heyshope Dam - this study area far exceeded the described zones of impact from any of the specialist studies.
- 226.** In conclusion and if **(1)** the onsite impacts are already reduced to negligible by mitigation and **(2)** the downstream water users were listed and seen not to be impacted in a measurable way, then the Director-General obviously had enough information available to take a decision and authorise the issue of the Water Use Licence applied for.

Ad paragraph 64, 65, 66, 67, 68 and 69 thereof:

- 227.** This whole ground of appeal is premised upon a complete misrepresentation of what the precautionary principle in Environmental Law is all about: the essence of the precautionary principle is captured by Principle 15 of the Rio Declaration:

“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

In other words, the precautionary principle does not address the issue whether or not the application for a Water Use Licence should have been granted or not⁹⁸ but addresses the issue what conditions or mitigating measures should be imposed despite the lack of full scientific certainty.

228. With regard to paragraph 65 of the Supporting Submission, we have already pointed out that there are no fundamental deficiencies in the environmental impact assessments and/or specialist studies submitted by Atha-Africa in support of the application for a Water Use Licence.

229. With regard to paragraph 66 of the Supporting Submission:

229.1 the issues pertaining to groundwater, groundwater assessment and groundwater modelling have already been fully dealt with and it has been demonstrated that the criticisms of the Appellant in this regard are without any merit;

229.2 the dry season will be the worst case scenario, which has to be taken as the point of departure for the precautionary principle to be applied and to be generally conservative in the assessment approach, but a worst case variability was also assumed: in other words, DeltaH acknowledged this very shortcoming which the Appellants now selectively highlight and for

⁹⁸ This primary issue is addressed by the concept of sustainable development, which is defined in section 1(1) of NEMA to mean the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.

that reason a reasonable variability of conductivities was assumed - low confidence does not imply a lack of understanding of the groundwater impacts but an understanding thereof, consistent with all the known facts and based on the most plausible model, which is subject to further verification and possible modification;

229.3 more drilling would have been needed to verify the conductivity and existence of the dolerite sill, leading to more damage to wetlands and potentially compromising the integrity of the dolerite sill, whilst on site observation in existing mining adits shows the assumptions to be close to correct since virtually no water ingress into these have been noted: we caution, however, that the existing mine adit is relatively short and other conditions might be encountered at greater depth but which are for the moment impossible to predict;

229.4 the two specified boreholes are kilometres away from the surface footprint and from the underground footprint, but in view of the limited connectivity between the shallow aquifer and the deep aquifer (from which the boreholes will draw water) this is a negligible consideration; in addition water will be abstracted from the two boreholes only during construction or if water inflow into the underground mine is insufficient to operate the mine - there was no reasonable basis upon which Delta H had to assess any theoretical cumulative drawdown impact;

229.5 the contaminant plume has been dealt with in **paragraph 193 above**; and

229.6 to address the predicted decant water quality, a model with even less accurate assumptions would be required and therefore, in taking a conservative approach and applying the precautionary principle, the worst case qualities from other mining sites were used;

229.7 to address the predicted decant water quantity, the volumes were assessed by Delta H to be the same as the predicted inflow as modelled, which is again an over-estimation in accordance with a conservative approach applying the precautionary principle.

230. With regard to paragraph 67 and 68 of the Supporting Submission, we repeat what we have stated in **paragraph 162.5 above**; in addition:

230.1 to develop a so-called Class 3 Model for a greenfields project is virtually and practically impossible without major drilling and damage to the area - which would defeat the very purpose of the exercise;

230.2 the stated low confidence in the Delta H Groundwater Model is no reason for not using it in its current state for any decision-making: firstly, it is the most reliable and plausible model available under the circumstances, to a certain extent corroborated by on-site observations; secondly, it is not claimed that this model is based on "*full scientific certainty*" but that is no

reason to postpone cost-effective measures to prevent environmental degradation; and

230.3 the proposition as advanced by the Appellants and the GCS Review is directly in conflict with the essence of the precautionary principle: the precautionary principle is not a command not to proceed with a development unless full scientific certainty is obtained but is a command to proceed despite the lack of full scientific certainty and then to do so with care and caution by nevertheless introducing cost-effective measures to prevent environmental degradation where there are threats of serious or irreversible damage.

231. With regard to paragraph 69 of the Supporting Submission:

231.1 we repeat what we have stated in **paragraph 224-227 above**;

231.2 despite a lack of "*full scientific certainty*" (which certainty in a matter such as this will never be achieved in practice), the current level of knowledge of the environmental impacts of the Yzermyn Project is available to inform any decision-making on the application for a Water Use Licence and that knowledge is with respect sufficient to make an informed decision;

231.3 Atha-Africa has provided the best information within the current means available and not much more could be done to have more information -

in this regard it is significant to note that neither the Appellants nor the Brownlie Review or the GCS Review advances any practical proposal of how one should have gone about to reasonably gather more information;

231.4 the limits on the current level of knowledge in this regard is countered by a generally conservative approach to rather identify a potential impact for which a mitigation measure is developed than to dismiss the possibility of such a potential impact out of hand - completely in line with and according to the precautionary principle;

231.5 the limits on the current level of knowledge cuts both ways: it also implies that the environmental impacts of the Yzermyn Project may well be far less than anticipated but, in view of the conservative and precautionary approach adopted by Atha-Africa and taking into account the mitigation measures upon a current worst-case scenario - properly and scientifically developed with due regard for another respected environmental management principle, namely the preventative principle to the effect that environmental impacts should be avoided, or, where they cannot be altogether avoided, should be minimised and remedied - upon the approach followed by Atha-Africa, the chances of having less impact are much better than the chance of having a higher than predicted impact;

231.6 the current worst-case scenario indicates:

- that the groundwater impacts are not likely to extend beyond the

- site boundary of the Yzermyn Project;
- it was already established that the site of the surface footprint is not pristine;
- the surface water impacts were established to be localised and mitigation measures adequately address the impacts that occur on site of the surface footprint;
- the wetland impacts are limited to the seep wetlands and will not go significantly beyond the site boundary of the Yzermyn Project; and
- the biodiversity-related impacts are mostly limited to the surface infrastructure disturbance on 22.4 hectares, of which none is in a pristine state or of any conservation significance.

232. In the result the propositions advanced by the Appellants, upon a completely incorrect conception of the precautionary principle, are again in the nature of nitpicking and unnecessarily alarmist.

Ad paragraph 70 thereof:

233. We respectfully differ from the inferences drawn by the Appellants to the effect that the current information in support of the application for the Water Use Licence was regarded as inadequate by the Director-General or officials from the Department: the recommendation that certain conditions be included in the Water Use Licence (for information to be updated and for a motivation regarding

impacts on the Mabola Protected Environment) is with respect nothing more than a practical application and implementation of a conservative approach as well as the precautionary principle, as required by law.

Ad paragraph 71 thereof:

- 234.** In this paragraph the Appellants advance the proposition that, on the basis of the current knowledge of the environmental impacts of the Yzermyn Project and “*within the meaning of the precautionary principle*”, it was “*undoubtedly*” required that Atha-Africa be denied a Water Use Licence “*in respect of the proposed colliery*” - this proposition is, with the greatest of respect, completely untenable.
- 235.** **Firstly**, the application for a Water Use Licence was not in respect of a colliery but in respect of specific water uses as defined and required by the NWA albeit that they were related to coal mining.
- 236.** **Secondly**, this proposition by the Appellants is based upon a completely incorrect conception of the precautionary principle and it does not have the meaning attributed to it by the Appellants: the precautionary principle does not require the society, the economy, the entrepreneurs and/or developers to remain in stasis until and unless there is full scientific certainty about the environmental impacts of an initiative that will also alleviate poverty by creating jobs and contributing to the economy; the precautionary principle is in fact an injunction to proceed with caution in the face of a lack of full scientific certainty.

237. Thirdly, any decision on an application for a Water Use Licence is polycentric by nature and requires a proper consideration of all relevant factors: also in this regard the proposition by the Appellants is fatally flawed because it adopts a check-list approach to argue that, on the basis of only one single principle

- selected by them without regard for the broader context of the requirement for sustainable development;
- selected by them without regard of the fact that this precautionary principle is but one of a number of factors to be taken into account; and
- to which they furthermore arbitrarily attributed a meaning that is incorrect;

the application for a Water Use Licence should have been dismissed.

238. In the result we respectfully dispute that the precautionary principle was not adequately considered when the Director-General took the decision to approve and issue the Water Use Licence.

Ad paragraph 72, 73 and 74 thereof:

239. Except to dispute that the decision to grant an exemption to Atha-Africa from the requirement of regulation 4(b) of the NWA Regulations⁹⁹ was unjustifiable, the remaining allegations contained in these paragraphs do not call for a response.

⁹⁹ See GN R. 704 of 1999.

Ad paragraph 75 thereof:

240. We repeat what we have stated in **paragraph 165-168 above**: how do you assess grouting from an armchair?

Ad paragraph 76 thereof:

241. We repeat what we have stated in **paragraph 197 above**.

Ad paragraph 77 thereof:

242. The theoretical proposition as advanced by the Appellants, that meaningful rehabilitation after mine closure is “*likely*” not possible,¹⁰⁰ is on the one hand without any foundation and, on the other hand, is contradicted by practical observation of the natural and spontaneous rehabilitation of agricultural fields that were previously ploughed under and located in the area of the Yzermyn Project Area.

243. With regard to paragraph 77.1 of the Supporting Submission, the Appellants quoted selectively from the Scientific Aquatic Services Assessment Report (2015), which on the very same page¹⁰¹ also states the following amongst others:

¹⁰⁰ Ironically the Appellants demand full scientific certainty from Atha-Africa in respect of every proposition advanced but when it suits the Appellants they advance propositions in respect of which they admittedly lack full scientific certainty.

¹⁰¹ p. 67.

“Nevertheless, the potential for effective recovery of the vegetation following disturbances indicates that the site may be suitable for the implementation of a post-closure rehabilitation plan.”

Very effective wetlands are normally diverse in species and they are very resilient to changes, meaning that they also have a potential for recovery.

244. With regard to paragraph 77.2 of the Supporting Submission, we have already dealt with the untenable recommendations and findings of the Natural Scientific Services Report (2013)¹⁰² on the basis of which the propositions in this and other paragraphs are again advanced:

244.1 Theoretical speculation aside, the physical reality is that the wetlands currently occurring above the old unrehabilitated coal mine adits are not completely drained and devoid of biodiversity; on the contrary.

244.2 Not only was the predicted cones of draw-down refined by the new groundwater model, resulting in a smaller area of wetland that could potentially overlap with the areas of draw-down, it was also demonstrated that the seep wetlands are mostly associated by a perched water table and are unlikely to be affected by the draw-down.¹⁰³

245. With regard to paragraph 77.3 and 77.4 of the Supporting Submission:

¹⁰² See paragraph 20 above.

¹⁰³ See Scientific Aquatic Services Assessment Report (2015) p. 68.

245.1 the WSP Geohydrology Impact Assessment (2013)¹⁰⁴ - on which the recommendations and findings of the Natural Scientific Services Report (2013) were based - stated the following (own underlining added for the sake of emphasis):

“Model simulations indicate that groundwater contamination will move from the mine workings in a north and northeast direction in the deeper fractured rock aquifer. The plume may extend more than 2km down gradient of the mining operations (Figure 2020). Simulations considered the inferred faults to act as preferential paths of groundwater flow. This impact is assessed to be of medium environmental significance.”; and

245.2 both the WSP Geohydrology Impact Assessment (2013) and the Natural Scientific Services Report (2013), in addition to any other shortcoming, leave out of account that there is a water divide between the Yzermyn Project Area and the Freshwater Priority Area Wetlands, which makes it improbable that the Freshwater Priority Area Wetlands will be impacted: the cones of depression are also not extending that far based on the updated groundwater model by Delta H and the Yzermyn Project Area is unlikely to impact on the Freshwater Priority Area Wetlands.

246. With regard to paragraph 77.5 of the Supporting Submission, we have already dealt with these propositions: the decant will be captured and treated before release and will therefore not be able to have an impact on the exaggerated

¹⁰⁴ p. 20.

scale as stated in the outdated the Natural Scientific Services Report (2013).¹⁰⁵

247. With regard to paragraph 77.6 of the Supporting Submission, these alarmist propositions are belied and contradicted by the following:

247.1 the historical ploughing under of the site for the surface infrastructure also resulted in a complete removal of vegetation and levelling of the area, but that site has spontaneously recovered to such an extent - with no rehabilitation intervention - that the specialist from the firm Natural Scientific Services did not even realise it was previously disturbed by agricultural activities and was previously ploughed field;

247.2 the surface footprint impacted upon is 22.4 hectares - this is a very small area in relation to the bigger site and even smaller in relation to the whole catchment - containing previously disturbed wetlands with very little if any conservation significance;

so that the ratings as relied upon by the Appellants are indisputably overstated; also interesting is that the Appellants do not even bother to refer to the Wetland Rehabilitation and Management Plan as provided for in the Integrated Water and Waste Management Plan.

¹⁰⁵ See paragraph 20 above.

Ad paragraph 78 thereof:

- 248.** We respectfully dispute the submissions as advanced on behalf of the Appellants in this paragraph: the effectiveness of the proposed mitigation was properly substantiated by the best information currently available whilst the said submissions are based on a perception created by exaggeration, emotional arguments, misconception about the true scope and ambit of the precautionary principle, and a selective reliance upon outdated reports.

Ad paragraph 79 thereof:

- 249.** The assertion by the Appellants in this paragraph is false.
- 250.** The possible effects of the Yzermyn Project on people living in the area were objectively and fully reported on in the Environmental Impact Assessment Report: in summary:¹⁰⁶

“The historically disadvantaged communities (including Yzermyn Farm Community, Dirkiesdorp, eSizameleni) viewed the proposed Project as providing opportunities and development to the local communities, through employment, skills development and infrastructure upgrades. These communities, who directly fall within the area, where the mine is to be located, on more than one occasion expressed their support for the mining development, especially in light of the intention if AAV to locally source labour and other services and support local infrastructure development.”

¹⁰⁶ p. 452.

251. The Appellants chose to quote selectively while ignoring large parts of the Socio-Economic Study Report: the specialist's information has been incorporated in detail in the Environmental Impact Assessment Report¹⁰⁷ and it has also been referred to in the Environmental Management Programme Report.¹⁰⁸

Ad paragraph 80 thereof:

252. On the same page of the Socio-Economic Study Report selectively quoted from by the Appellants,¹⁰⁹ the following mitigation measure is dealt with:

“In order to ensure that the local communities benefit from the proposed project, it is recommended that skills development and training is implemented by Atha prior to the construction phase (preconstruction), as described in Sections 5.7.1 and 5.7.2. This should be aimed at ensuring that the individuals within the local communities have the skills required for the mining construction phase.”

The following is also stated on the same page 29 as a further mitigation measure:

“The degree to which downstream economic impacts provide local stimulus to the economy is based on the degree to which value added services can be locally sourced. There may be an opportunity for business and entrepreneurial development within the local area. Atha and its contractors will require services and materials for the construction phase of the proposed mine. There is an opportunity to source these at a local or regional level. It is

¹⁰⁷ See p. 454-460, p. 487, p. 517, p. 533, p 564 and p. 670.

¹⁰⁸ See p. 670.

¹⁰⁹ p. 29.

recommended Atha prioritise local procurement through ensuring that internal procurement policies, as well as agreements with contractors and sub-contractors, include the following conditions such as: 'The procurement of goods and services must be localised wherever feasible and practical. If possible the tender should demonstrate how this will be achieved.'

Further mitigation measures (including mentorship programmes, structured programmes for suppliers and the appointment of an Enterprise Development Manager) are also listed but simply ignored by the Appellants.

253. The Integrated Water and Waste Management Plan also states that Atha-Africa *"firmly believes that the competence of its human capital is of utmost importance to the future success of the proposed project and its organisation. It furthermore recognises that in order to address the skills deficit faced by the workforce, considerable effort and investment should be directed towards the education, training and skill development of its employees ..."* and then proceeds with a further list of interventions for social upliftment.¹¹⁰

254. We respectfully point out that by now the biased strategy employed by the Appellants should be very clear: only the negative and emotional environmental impacts are emphasised out of context and blown out of proportion whilst any mitigation measures are simply ignored and left out of account.

255. The Socio-Economic Study Report¹¹¹ also stated the following (own underlining)

¹¹⁰ p. 233.

¹¹¹ p. 30.

added for the sake of emphasis):

“In accordance with the MRPDA,¹¹² mining operators are required to develop and submit an SLP¹¹³ as part of the application for mining rights. Atha must, therefore, ensure that labour is sourced locally where feasible for the operational phase. The local area from which local labour should be sourced should target the Dirkiesdorp and Wakkerstroom/eSizameleni area, as well as the greater Mkhondo and Pixley ka Seme local municipalities. The Gert Sibande District Municipality region should, however, also be considered part of the local labour sending area. A small number of opportunities may be sourced from the immediate area; however these are likely to be mainly unskilled, such as security and cleaning staff. Priority must, therefore, be given to local labour, and skills development must be promoted at a local level (as described in Section 5.7.1 below). In order to meet the skills requirements for the mine, skills development initiatives will need to be provided to promote the expansion of the required skills in the local context. There is currently very low skilled labour force present within the ADI,¹¹⁴ as discussed in Section 5.4.1 above. Due to the limited numbers of unskilled, semiskilled and skilled employment opportunities, the proposed mine will offer little or no economic benefit for the local area without skills development. It is recommended that Atha prioritise the development of skills within local communities at a planning stage to ensure that local community member have an opportunity to apply for the available positions within the mine. Where possible this should be implemented as follows:

- *Identify positions available;*
- *Identify, through discussions with the local communities, individuals with the interest and aptitude for the proposed positions; and*
- *Provide skills training to individuals to potentially take up*

¹¹² the acronym for the Mineral and Petroleum Resources Development Act 28 of 2002.

¹¹³ the acronym for the compulsory Social and Labour Plan as required by the MPRDA, a legislative instrument pursuing the object set out in section 2(i) thereof - to ensure that holders of mining rights contribute towards the socio-economic development of the areas in which they are operating.

¹¹⁴ an acronym for the Area of Direct Impact.

positions during the operational phase.

Atha is required to provide portable skills development (other than mining) and basic education and further education opportunities to employees, and potentially local communities. The SLP outlines a skills development programme, including Adult Basic Education and Training (ABET), core skill training, external learnerships, internal learnerships, portable skills, bursaries, internships, portable / marketable skills, mining sector skills, basic education and further education and training. Although these are focussed on internal (employee) training, there is an opportunity for the mine to develop local skills for working within the mine and supporting services sectors.

The promotion of education through providing facilities (as discussed in the SLP under local economic development initiatives) is likely to assist Atha in supporting the development of skills within the local area. The provision of these facilities is vital to improving the social impact of the proposed project. Without sufficient skills training and awareness of what skills are necessary, there are unlikely to be any skilled labour to supply the mine. These facilities must, however, be run by accredited organisations, such as Further Education and Training (FET) College.”

- 256.** The total picture is thus not the one as painted by the Appellants on the basis of selective snippets from the Socio-Economic Study Report; that picture does not only include the stark reality of poverty, unemployment and lack of skills in the area of direct social and economic impact of the Yzermyn Project but it also includes the various interventions planned for and committed to by Atha-Africa with a view to improve the social impact of this project.

Ad paragraph 81 thereof:

- 257.** The Appellants leave out of account the very important qualification that this

alleged impact on eco-tourism is foreseen only “*if mitigation measures are not implemented*” and there is simply no basis upon which it can even be suggested that Atha-Africa will not implement these mitigation measures: Atha-Africa has committed to do so and is legally, contractually and morally obliged to do so.

258. Furthermore the Socio-Economic Study Report refers only to the Wakkerstroom Community and does not have the regional implication attributed thereto by the Appellants with the claim that eco-tourism contributes “*materially to job-creation in the area*”; with regard to the claim that there is a material contribution by eco-tourism to job creation, this is what is stated in the Environmental Impact Assessment Report (own underlining added for the sake of emphasis):¹¹⁵

“It has been noted that approximately 400 jobs have been created as a result of eco-tourism in the entire Wakkerstroom region (A. Burns, per comms, 2012), dependent on the bird life. It is anticipated that as Wakkerstroom is in close proximity to the proposed mine, and should the development continue, contractors and clients of the proposed mine may require accommodation within Wakkerstroom. This may have a positive effect on accommodation venues in the Wakkerstroom area and could result in an increase of tourism and associated job opportunities. If the suggested mitigation measures in the ESMP are not implemented, then environmental impacts resulting from the proposed mine may degrade the surrounding surface and groundwater sources, resulting in a potential reduction in biodiversity and potential decline in eco-tourism. Should the project not go ahead, existing employment opportunities pertaining to tourism will be retained but the additional semi-skilled employment opportunities around Dirkiesdorp will not be created.”

¹¹⁵

p. 97 (annexure H).

259. We respectfully submit that there is no reason why eco-tourism and the Yzermyn Project (with its small area of surface infrastructure to provide access to an underground mine) cannot both be pursued in this area or region, so that the local communities can reap the benefits from job-creation in both sectors.

Ad paragraph 82 thereof:

260. We take note of the proposition that the Yzermyn Project Area also supports agricultural employment opportunities but:

260.1 the farmer and owner of the land has given his written consent to Atha-Africa for lodging its application for a Water Use Licence and supports the Yzermyn Project;

260.2 the Yzermyn Project has the potential to provide much more employment opportunities than agriculture can in respect of the agricultural area affected by the surface infrastructure of only 22.4 hectares; and

260.3 there is no basis to suspect that any of the existing agricultural employment opportunities are going to be lost as a result of the Yzermyn Project.

Ad paragraph 83 and 84 thereof:

261. The Yzermyn Project did not cause these communities or the eight households to be or become vulnerable: they are or became vulnerable because of the lack of opportunity or development in their immediate surrounds whilst the Yzermyn Project provides them with the opportunity to become less vulnerable.

262. According to the Environmental Impact Assessment Report¹¹⁶ the historically disadvantaged communities (including Yzermyn Farm Community, Dirkiesdorp and eSizameleni) viewed the proposed mine as providing opportunities and development to the local communities, through employment, skills development and infrastructure upgrades; these communities expressed their support for the mining development, if labour and services were sourced locally, and if the mine supported local services and infrastructure development.

263. The allegations made by the Appellants in these paragraphs are also not strictly speaking correct:

263.1 Firstly, there is a stark and important difference between the “*proposed mining site*” and the surface footprint of 22.4 hectares, which is the only area that will be lost to commercial farming.

263.2 Secondly, given the location and elevated position of the surface

¹¹⁶ p. 452.

footprint, there will be no impact on subsistence farmers at all: each labourer is allowed to hold 15 head of cattle on the commercial farm (which is larger than the cadastral unit of only Portion 1 of the Farm Yzermyn with a size of 193.83 hectares and of which only 11.6% will temporarily be fenced in for about 15-20 years) - the 22.4 hectares temporarily unavailable for commercial farming, at a carrying capacity of 5 hectares per large stock unit,¹¹⁷ represents grazing for about five (5) head of cattle **only, assuming** that these labourers graze their cattle on the surface footprint.

263.3 Thirdly, there is no homestead within the surface infrastructure footprint of 22.4 hectares and there is also no clear evidence that the labourers working on this commercial farm are actually grazing their cattle on Portion 1 of the Farm Yzermyn; some of the homesteads are located on the adjacent Remainder of the Farm Yzermyn and it is more probable that they will have their cattle grazing on that land in the vicinity of their homesteads.

263.4 Fourthly, it is only the surface infrastructure footprint that will be fenced in and not the whole of the mining site (which is underground).

264. In the result it is completely far-fetched to even suggest that the access of these subsistence farmers to natural resources, such as water and grazing land, may

¹¹⁷ See the Environmental Impact Assessment Report p. 135.

be prevented: they will still have access to grazing land and they will still have access to water resources with no impact on their subsistence farming resulting from the Yzermyn Project.¹¹⁸

Ad paragraph 85 thereof:

265. The correct factual matrix is as follows:

265.1 According to observations by local people, the springs already dry up in winter without the establishment or impact of the Yzermyn Project.

265.2 There are 23 springs on all of the farms located within the larger Mining Area but only 6 of the springs fall within the footprint of the underground mining area of the Yzermyn Project Area.

265.3 In the Environmental Impact Assessment Report¹¹⁹ the impact on the fountains or springs is illustrated, showing that at most 3 of those springs might be affected.

266. Nowhere in the Environmental Impact Assessment Report is it stated that 23 springs will dry up due to underground mining or the construction of the surface infrastructure; in fact, it was found that the there is no significant connection

¹¹⁸ See the Environmental Impact Assessment Report p. 247, p. 462, p. 467-468, p. 496, p. 500, p. 547, p. 565, p. 572, p. 696-697.

¹¹⁹ p. 317 (figure 7.29).

between the deep aquifer and the shallow aquifer, reducing the potential impact of the cone of depression significantly.

Ad paragraph 86 thereof:

267. The assessment by the Brownlie Review is biased and nothing more than armchair criticism of the discussion of the socio-economic impacts of the Yzermyn Project in the Environmental Impact Assessment Report.

268. **Firstly**, the Socio-Economic Study Report should not be considered by choosing certain portions selectively and ignoring large parts thereof: the information from this specialist report has been incorporated in detail in the Environmental Impact Assessment Report.¹²⁰

269. **Secondly**, on the version of the Appellants themselves the socio-economic impacts of the Yzermyn Project are addressed in the Environmental Impact Assessment Report (albeit not to their liking or idiosyncratic preferences).

270. **Thirdly**, we repeat what we have stated in **paragraph 255 above**.

271. With reference to paragraph 86.1 of the Supporting Submission:

271.1 there is simply no empirical foundation for the speculative “*strong future*”

¹²⁰ See p. 454-460, p. 487, p. 517, p. 533, p 564 and p. 670.

of a natural-based tourist industry for Wakkerstroom and the surrounding conservation areas;

271.2 the economic reality is that in the modern world there will always be a need for goods produced by an extractive industry such as mining (making the mining industry a more reliable source of job opportunities for the unemployed) but the need for tourism as a preserve for the rich is of a cyclical nature (making the tourism industry much less reliable as a source of job opportunities);

271.3 neither the Appellants nor the Brownlie Review makes mention of a single project or initiative whatsoever to develop this alleged “*strong future*” of a natural-based tourist industry, and we are not aware of any jobs that are being planned or communicated in this natural-based tourist industry; and

271.4 lastly, there is no reason in logic or in fact why a natural-based tourist industry cannot coexist with the mining industry: examples are the Langer Heinrich Mine and the Husab Mine inside the Namib Nauklooft Park, the Tshikondeni Mine (also an underground coal mine that started operations in 1984) on the border of the Kruger Park, the Foskor Phosphate Mine or the Phalaborwa Copper Mine inside the Kruger Park.

272. With reference to paragraph 86.2 and 86.3 of the Supporting Submission, we have already made the point that Mining and Tourism are not mutually exclusive;

in fact, many mines operate their own conservation areas and the impact of Mining on Tourism can be positive.

- 273.** With reference to paragraph 86.4 of the Supporting Submission, the criticism of the Brownlie Review is with respect unrealistic: the potential influx of labour and jobseekers, in an area already suffering from extensive unemployment, cannot be quantified or ascertained with any measure of certainty and it is simply not practically possible to make a more informed assessment in this regard than were addressed in the Environmental Impact Assessment Report.¹²¹

Ad paragraph 87 thereof:

- 274.** The Environmental Impact Assessment Report describes the socio-economic setting based on the information obtained from a Social Impact Analysis¹²² while the socio-economic impacts are also described therein;¹²³ the requirements of section 27 of the NWA are also discussed separately.¹²⁴
- 275.** The Appellants also make no mention of the Social and Labour Plan of Atha-Africa, which was required to be submitted as part of the application for a Water Use Licence:

¹²¹ See the Environmental Impact Assessment Report p. 247, p. 462, p.467-468, p. 496, p. 500, p. 547, p. 565, p. 572, p. 696-697.

¹²² p. 139-151.

¹²³ p. 196, p. 205-207, p. 212 and p. 213.

¹²⁴ p. 226-247.

- Appendix 2.2.6 thereof describes external learnerships that will be available and contribute positively to the community.
- Appendix 2.2.8 describes schools support and post matric programme, another positive impact.
- Appendix 2.6.1-2.6.3 describes bursaries and internships to be offered by Atha-Africa; and
- Appendix 3.1 describes the potential social impacts of the Yzermyn Project.

276. We respectfully submit that the Director-General was in as good a position as possible to adequately consider the socio-economic impact of the water uses, if authorised, as required in terms of section 27(1)(d) of the NWA.

Ad paragraph 88 thereof:

277. We have already dealt with the proposition advanced in this paragraph and why it is not only incorrect but simply untenable - as already pointed out in the various reports, these resources will not be lost to any of the local farmers, including subsistence farmers and poor rural communities, but refusing the application for a Water Use Licence may well rob these previously disadvantaged individuals from an opportunity to better their circumstances.

Ad paragraph 89 and 90 thereof:

278. All of the submissions advanced by the Appellants in these paragraphs are based on false premises:

278.1 The Yzermyn Project does not have a negative impact to be borne by poor communities but will positively create job opportunities, careers and also a general social upliftment for them.

278.2 The wealth of the natural resources removed from the ground will accrue predominantly to the citizens of the Republic of South Africa with only a reasonable and legitimate profit, remaining after all expenses were paid and large amounts invested in the local economy, accruing to a foreign investor who was invited by the Government of the Republic of South Africa to invest in the local mining industry which is by nature capital-intensive and which cannot function but for such foreign investments made on the basis of investment confidence in this country.

278.3 The social, economic and environmental impacts of the Yzermyn Project, including the disadvantages and benefits thereof, have been properly considered, assessed and evaluated.

278.4 Any negative impacts on the environment and on the environmental rights of any person was indeed anticipated and mitigation measures are in

place to prevent such negative impacts and, where they cannot be altogether prevented, to minimise or remedy such impacts.

- 279.** In the result there was no failure to consider, or failure to consider adequately, the socio-economic impact of the water uses, if authorised, as required by section 27(1)(d) of the NWA.

Ad paragraph 91-98 thereof:

- 280.** This administrative appeal in terms of section 148(1)(f) of the NWA is a complete re-consideration and re-hearing by the Water Tribunal of the application for a Water Use Licence, and not a review by the Water Tribunal of the conduct of the Director-General.

- 281.** In the result all of the allegations contained in these paragraphs are irrelevant and do not call for any response: this is not a tribunal of review (concerned with alleged to procedural irregularities) but a tribunal of appeal (seized with the merits of an application for the granting of a Water Use Licence in respect of specific water uses).

Ad paragraph 99 thereof:

- 282.** In the premise Atha-Africa requests that the administrative appeal in terms of section 148(1)(f) of the NWA be dismissed and that the decision of the Director-

General, to approve the application and issue the Water Use Licence, be confirmed.

Ad paragraph 100 thereof:

- 283.** The request of the Appellants in this paragraph do not call for a response from Atha-Africa but Atha-Africa will also appreciate a detailed index of all documents that were provided to the Water Tribunal in terms of item 5(3)(a) of Schedule 6 to the NWA.

Concluding remarks:

- 284.** The Notice of Appeal together with the Supporting Submission as lodged by the Appellants is with respect an exercise in second-guessing.
- 285.** Without advancing any clear case or stance of their own based on independent or additional facts, the Appellants embarked upon an exercise wherein they donned the various mantles of an interested and affected party, of an environmental assessment practitioner, of an environmental specialist and ultimately even the mantle of the regulatory decision-maker.
- 286.** What the Appellants in fact provided was the outcome of their reasoning and how they would hypothetically have assessed, evaluated and criticised the application for a Water Use Licence without putting any further factual basis or

new specialist reports assessing environmental impacts forward and without assisting the Water Tribunal.

- 287.** This was with respect a frivolous exercise in nitpicking before a non-judicial forum in which there is no onus of proof in the strict evidential sense but only a duty to put forward those facts and information supporting the favourable exercise of a discretion, which the Appellant failed to do.
- 288.** The Appellants cannot, with respect, arrogate for themselves the role, function, responsibilities and privileges of the decision-maker (whether it be the Director-General or the Water Tribunal).
- 289.** We respectfully submit that the application for a Water Use Licence, as submitted by Atha-Africa in terms of the NWA, is properly before the Water Tribunal, that the merits thereof are beyond dispute and that a proper case for the approval thereof has been made out.

WHEREFORE the Second Respondent prays that the administrative appeal, lodged by the Appellants in terms of section 148(1)(f) of the National Water Act 36 of 1998 against the decision of the Director-General to approve the application for a Water Use Licence and to issue it, be dismissed and that the decision of the Director-General, to approve the application and issue the Water Use Licence, be confirmed.

SIGNED AND DATED AT PRETORIA THIS ^{13th} DAY OF MARCH 2018.



Mr F Joubert
Attorney for Second Respondent
GFJ Attorneys
Suite 3 Oakfields
67 Portobello Drive
Centurion Golf Estate
Highveld Extension 7
CENTURION
Tel: 012 663 6307
Fax: 012 663 6307
Cell: 083 680 2075
E-mail: joubert@gfjattorneys.co.za

To: **The Registrar of the Water Tribunal**
Department of Water and Sanitation
Waterbron Building
191 Francis Baard Street
PRETORIA
WUL No: 05/W51A/ACFGIJ/4726
File: 16/2/7/W51/Yzermyn

And to: **First and Second Appellant**
Centre for Environmental Rights
Per address:
Du Plessis & Kruyshaar Inc
Suite No 2
118 Sovereign Drive
Route 21 Corporate Park
Irene
PRETORIA
Ref: Rentia Kruyshaar

And to: Third Appellant
Mpumalanga Agriculture
124 Alwyn van Zyl Street
ERMELO
Ref: Robert Davel
Fax: 086 660 5673

And to: First Respondent
Director-General
Department of Water in Sanitation
Sedibeng Building
185 Francis Baard Street
PRETORIA