



Centre for Environmental Rights

Advancing Environmental Rights in South Africa

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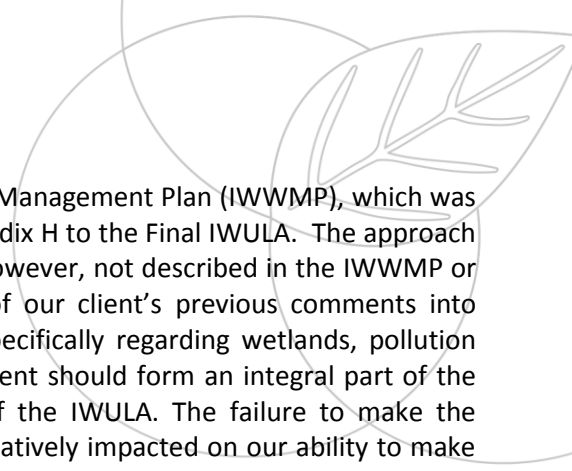
Dear Sirs and Mesdames

Comments on the Final Integrated Water Use Licence Application Report for KiPower's proposed construction of a 600 Megawatt (MW) Independent Power Producer Coal-fired Power Station

Introduction

1. We make these submissions on behalf of the same clients as indicated in previous submissions in relation to the integrated water use licence application report (IWULA) and in the Environmental Impact Assessment (EIA) process.
2. We confirm that, although the website of KiPower's Environmental Assessment Practitioner (EAP) -Jones and Wagner Engineering and Environmental Consultants – still indicates that the deadline for comment on the final IWULA was 13 February 2015, it was agreed that the deadline would be extended to 24 March 2015.

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3. Upfront, we wish to point out that the Integrated Water and Waste Management Plan (IWWMP), which was previously omitted as an annexure, has now been included as Appendix H to the Final IWULA. The approach and methodology followed in the development of the IWWMP is, however, not described in the IWWMP or the IWULA. Whilst we note that the IWWMP has taken some of our client's previous comments into consideration - for instance regarding the setting of objectives, specifically regarding wetlands, pollution prevention, etc., and contains an IWWMP Action Plan - this document should form an integral part of the IWULA, as it contains pertinent information for the evaluation of the IWULA. The failure to make the IWWMP available from the stage of the draft IWULA report has negatively impacted on our ability to make submissions on it. We reserve our rights in this regard.
 4. We refer you to the attached Annexure **A**, which is an expert review prepared by Carin Bosman and Carol Hooghiemstra of Carin Bosman Sustainable Solutions. It indicates whether the IWULA has dealt with each identified issue completely/comprehensively ('C'), adequately ('A'), or inadequately ('I'). In summary, the IWULA remains inadequate and fatally flawed in material respects. It is submitted that it should be refused.
 5. In relation to public participation in particular, the IWULA fails to bring the water-related shortcomings and issues as identified by interested and affected parties to the attention of the Department of Water and Sanitation, nor does it indicate how potential impacts on other water users were identified, quantified, or mitigated against. This is unacceptable to our clients.
 6. Among other IWULA defects highlighted in Annexure A, the IWULA fails to give proper consideration to the National Water Act, 1998 section 27 considerations. In addition, the IWULA still relies heavily on the information contained in the EIA/EMPr, and often does not summarise the relevant information in the IWULA, instead referring to the EIA/EMPr. This is not acceptable or adequate, especially in circumstances where there are major flaws in these documents. Other significant concerns include that the IWULA: still does not identify, describe and investigate the potential adverse effects of mitigation measures; does not consider the potential for conflict between the benefits of mitigating measures and their adverse impacts; and does not discuss alternatives for mitigation.
 7. We note that KiPower does not appear to accept responsibility for the impacts of the previous mining activity. The project is referred to as a "rehabilitation" of a mining activity, but fails to address relevant regulations that apply to mining activities, such as the 1999 Regulations on Use of Water for Mining and Related Activities, aimed at the Protection of Water Resources, which applies even after excavations have ceased.
 8. These and the other flaws set out in Annexure A, as well as in our previous comments, make any decision to grant the IWULA open to legal challenge; including an appeal and/or a review in terms of the Promotion of Administrative Justice Act, 2000.
 9. In the circumstances, it is submitted that the IWULA and all relevant reports should be rejected, unless and until the numerous flaws are adequately rectified as indicated in our various submissions.
 10. Should you require more information regarding any aspect of these comments, please let us know.

Yours faithfully
CENTRE FOR ENVIRONMENTAL RIGHTS

per: 

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Annexure “A”: Determination on whether comments on the draft IWULA for KiPower, Delmas, Mpumalanga Province dated July 2014 had been adequately addressed in the Final IWULA dated December 2014

Comments on draft report	Comments addressed in final IWULA	C/A/I
General comments		
<p>The abstraction of contaminated water stored in an excavated pit is not defined as a water use in terms of section 21(a) of the NWA. The removal of this water should be addressed as part of a rehabilitation and remediation plan for the excavation, in accordance with section 19 of the NWA.</p>	<p>The IWULA states that the removal, treatment and reuse of water from Pit H is a section 21(a) water use, since this water will not be returned to the water resource. Removal of contaminated water is not “taking water from a water resource” as defined in section 21(a) of the NWA, unless the water in this excavation is in fact part of the groundwater resource, in which case the contamination of this water should be properly addressed, including the pollution plume created by this contaminated water.</p> <p>The existence of this contaminated water also contradicts the statement that the current groundwater quality is “good”, which is not based in the science of water quality management.</p> <p>In addition, any activity within 500 m from the boundary of a wetland is not a water use as defined in section 21(c) or section 21(i) of the NWA, and identifying such activities as “water uses” is legally incorrect</p>	I
<p>The inclusion of the application for section 21(f) water uses is vague, as no specific discharge point or discharge volumes are provided.</p>	<p>The section 21 (f) water uses were removed from the WULA, but the IWULA still proposes to discharge wastewater – this water use should not have been removed, it should have been better described in terms of location for and volumes of discharge.</p>	I
<p>As discussed in paragraph 2.1.2.2 above, the proposed activity is to take place on a brownfields site where existing infrastructure such as bridges or river diversions are present, and it is quite possible that a number of water uses could be authorised as ELUs. However, the current authorisation status of the existing facilities, and the current level of compliance with such authorisations, has not been addressed in the IWULA. It is thus not possible to determine if any activity is authorised as an ELU</p>	<p>Although two licensed river diversions were identified in the vicinity of the project held by Ikhwezi Colliery, paragraph 4.2 states that there are no existing lawful water uses associated with the proposed power plant since this is a new development. The authors of the Report do not seem to understand that, as landowner, KiPower is responsible for existing infrastructure such as farm dams, bridges, and other river crossings</p>	I
<p>As discussed in paragraph 2.1.2.3 above, no determination of the applicability of the General Authorisations has been made.</p>	<p>Section 4 of the IWULA states that the report is application for an IWUL and therefore “an application for authorisation in terms of the General Authorisations is not included”. This again demonstrates the lack of knowledge of the authors on the requirements relating to General Authorisations – there is no provision in the NWA in terms of which an “application” can be made for a General Authorisation.</p>	I
IWWMP Action plan		
<p>The IWULA for KiPower does not contain an IWWMP Action Plan. Under Appendix L, it is stated that the IWWMP “will be included in the submission to DWA”. This key document is thus not available for public scrutiny, which is a substantial omission, especially as the issues raised by stakeholders</p>	<p>The IWWMP was compiled as a separate document and is now included as Appendix H to the Final IWULA. The IWWMP has taken some of the comments into consideration with the setting of objectives specifically regarding wetlands, pollution prevention, etc., and contains an IWWMP Action Plan. However, this document should form an integral part of</p>	I

Comments on draft report	Comments addressed in final IWULA	C/A/I
should be addressed in the objectives of the IWWMP.	the IWULA, as it contains pertinent information for the evaluation of the licence application. As this IWWMP was only made available now, it was not evaluated in detail.	
Some Specific Procedural Shortcomings		
The approach and methodology followed for the compilation of the report, the development of the IWWMP Action Plan, and the execution of the water use licence application process, are not described.	The methodology followed for the compilation of the IWULA is included in Section 1.7. The approach and methodology followed in the development of the IWWMP is however not included in the IWWMP.	I
The report does not indicate what data are inadequate or absent, and does not identify knowledge gaps. Although gaps in information were pointed out to the applicant during the public participation process for the EIA/EMPr, these were not addressed in the compilation of the IWULA. There is a lack of required information on water aspects that leads to an incomplete and deficient process.	Knowledge gaps are summarised in Section 5.1 and presents the assumptions that were made to ensure that these gaps were adequately addressed.	A
The IWULA does not address relevant local, regional and national plans. For example, there is no reference to the IDP of the local and district municipality, or to the ISP for the relevant WMA.	Section 3.7 in the IWWMP now discusses relevant local, regional and national plans containing information on social and socio economic aspects, and also provides a summary of the baseline study undertaken for the EIA/EMP.	A
The IWULA does not adequately identify all water uses as defined in the NWA, and does not contain a proper description of water uses, in that none of the locations of the water uses identified are described by means of the coordinates where it will occur. The discussions on ELUs and GAs are legally incorrect, with the result that it is not possible to determine if the water uses listed in Table 4-1 of the IWULA, actually require authorisation by means of a water use licence.	Water uses as defined in the NWA was identified from Section 4.3 onward. Detail description is provided of each of the water uses, a table is included at the end of each section to provide the coordinates, the property, title deed, etc. However: <ul style="list-style-type: none"> • The IWULA states that the removal, treatment and reuse of water from Pit H is a section 21(a) water use, since this water will not be returned to the water resource. Removal of contaminated water is not “taking water from a water resource” as defined in section 21(a) of the NWA, unless the water in this excavation is, in fact, part of the groundwater resource, in which case the contamination of this water should be properly addressed, including the pollution plume created by this contaminated water. • In addition, any activity within 500 m from the boundary of a wetland is not a water use as defined in section 21(c) or section 21(i) of the NWA, and identifying such activities as “water uses” is legally incorrect • No ELUs have been identified. The authors of the Report do not seem to understand that, as landowner, KiPower is responsible for existing infrastructure such as farm dams, bridges, and other river crossings • Section 4 of the IWULA states that the report is application for an integrated water use licence and therefore an application for authorisation in terms of the General Authorisations is not included. This again demonstrates the lack of knowledge of the authors on the requirements relating to General Authorisations – there is no provision in the NWA in terms of which an “application” can be made for a General Authorisation. 	I
It appears that the compilers of the IWULA for KiPower are attempting to avoid issues raised on water aspects during public consultation: Although	Section 9.11.3 summarises the issues raised with regard to the draft IWULA as follows: <i>Comments made on the Draft IWULA are included in Appendix J. The following key issues</i>	I

Comments on draft report	Comments addressed in final IWULA	C/A/I
<p>the process followed for public consultation is described in paragraph 9 on p153 onward, there is no indication of any issues or concerns raised during public consultation processes regarding impacts on water or on other water users. Par 9.5 is entitled "Issues raised", but this paragraph meaninglessly refers to the Comments and Response Report, and does not extract relevant comments relating to impacts on water resources and water users. This is a serious omission, as the issues raised by the public during such processes that relate to water, should be captured in the IWULA, and should inform the objectives of the IWWMP Action Plan.</p>	<p><i>were raised regarding the draft IWULA:</i> <i>Procedural shortcomings</i> <i>Adequacy of the IWULA application documents</i> <i>Incorrect water uses identified</i> <i>Absence of the IWWMP in the draft IWULA</i> It therefore does not bring the water-related shortcomings and issues as identified by I&APs to the attention of the DWS, as would be expected in an IWULA, and does not indicate how potential impacts on other water users were identified, quantified, or mitigated against.</p>	
<p>Although there is a discussion on aspects listed in section 27 of the NWA in par 10.5 from p161 onward, the aspects mentioned do not fulfil the information requirements of section 27. The IWULA is indifferent towards social issues that relate to water: without describing the socio-economic baseline, and without assessing impacts on other water users and communities, and without listing the water-related issues raised during public participation, the unsubstantiated conclusion is reached in par 10.5.4 that the proposed project will only result in social benefits, and that there will be no social disadvantages.</p>	<p>ELUs have still not been identified. Paragraph 10.5.3, addressing the requirement that the water use will be "efficient and beneficial in the public interest", only deals with water use efficiency, and does not describe how the water uses will be "beneficial to the public" or "in the public interest", as opposed to, for example, solar power or other alternative energy sources.</p>	I
<p>There is no IWWMP Action Plan, and it is not possible to determine if issues raised during public participation will be used to inform the objectives and KPAs of the IWWMP Action Plan. It is thus not clear how the conclusion can be reached that the authorisation of the water uses will be "beneficial in the public interest", or how the issuing of the WUL will contribute to addressing the results of past racial and gender discrimination in the area.</p>	<p>The comments received during the EIA relating to water issues were summarised in Section 9.2.1 of the IWWMP and the comments received on the draft IWULA was summarised in Section 9.11.3 of the IWULA and Section 9.2.2 of the IWWMP. The IWWMP was compiled as a separate document and is now included as Appendix H to the Final IWULA. The IWWMP has taken some of the comments into consideration with the setting of objectives specifically regarding wetlands, pollution prevention, etc., and contains an IWWMP Action Plan. However, this document should form an integral part of the IWULA, as it contains pertinent information for the evaluation of the licence application. As this IWWMP was only made available now, it was not evaluated in detail. Nevertheless, neither the IWULA nor the IWWMP demonstrates how the water use will be "beneficial in the public interest".</p>	I
<p>The discussion in par 10.5.5 does not refer to the ISP for the Olifants, which is the current interim catchment management strategy for the Olifants.</p>	<p>Comment has not been addressed, and is still valid</p>	I
<p>Some Specific Substantive Shortcomings</p>		
<p>The IWULA relies heavily on the information contained in the EIA/EMPr, and often does not summarise the relevant information in the IWULA, but refers the reader back to the EIA/EMPr. This implies that all the issues raised in comments during March 2014 on the draft EIA/EMPr are also applicable to the IWULA, since these issues were not addressed in the Final EIA/EMPr, and the Final EIA/EMPr was used to compile the IWULA.</p>	<p>The IWULA still relies heavily on the information contained in the EIA/EMPr, and often does not summarise the relevant information in the IWULA, but refers the reader back to the EIA/EMPr. This is not acceptable or adequate, and the IWULA is certainly NOT a "stand-alone" document.</p>	I
<p>The IWULA does not describe the social, economic and cultural aspects of</p>	<p>A summary of the social and socio-economic baseline study are included in Section 3.7 of</p>	I

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<p>the baseline environment that may be affected by the proposed activity, and does not describe the biophysical components of the area to an acceptable level of detail – refer to CBSS comments on EIA/EMPr dated 24 March 2014. This leads to serious substantive deficiencies in the WULA, including the following:</p>	<p>the IWULA and in Section 5.9 of the IWWMP. Information on the biophysical components were included and updated in Section 5 of the IWWMP and include information on the wetlands, soil and air quality.</p> <p>Although a groundwater study was undertaken by JMA, the relevant information on background water quality was not included in the IWULA, except for the statement made that the water quality is “good”, which is not based in the science of water quality management, and which contradicts the knowledge that the water in the Pit is contaminated.</p>	
<ul style="list-style-type: none"> ○ There is a serious lack of site specific information on groundwater conditions at the project area; 	<p>Although a groundwater study was undertaken by JMA, the relevant information on background water quality was not included except for the statement made that the water quality is “good” – see comment above</p>	I
<ul style="list-style-type: none"> ○ There is no detail on the scope or extent of the hydrocensus that is said to have been carried out (par 5.2) – if it was only conducted for a 1km radius around the site, it is evident that no other water users will be identified, however, there is no information on this aspect; 	<p>Par 5.3 of the IWWMP states that the hydrocensus covered a minimum 2 km radius from the boundary of the project footprints. There were no boreholes identified within this proximity of the project. The groundwater study indicated in Section 6.7.1 that although a hydrocensus was done to identify borehole users around the study area, no information or knowledge of abstraction boreholes is available in the immediate vicinity of the proposed ADF and power station. It is unclear how the distance of 1 km, in the draft IWWMP, changed to 2 km in the Final IWWMP, and on which study this was based, as the groundwater study did not specify the distance it describes as “vicinity”. The methods used for the hydrocensus were also not discussed.</p>	I
<ul style="list-style-type: none"> ○ There is no information available on the current (baseline) status of groundwater pollution associated with the areas where the proposed ADF and Power Station sites are to be located; 	<p>Although a groundwater impact assessment was undertaken as part of the EIA/EMP process, the information of this study is not included in the IWULA or the IWWMP. The IWULA states that the groundwater quality is “good”, which has no basis in the science of water quality management. In addition, no information is available on the current (baseline) status of groundwater pollution associated with the areas where the proposed ADF and Power Station sites are to be located to support this statement.</p> <p>Detailed information regarding the impact on ground- and surface water quality as a result of the disposal of ash to the ADF was also not included in the groundwater study, IWULA or the IWWMP, specifically: which ground water dispersion model was used to determine potential changes in groundwater quality; what the extent of the groundwater contamination plume would be as a result of the disposal of ash to the ADF; and which current water users, and what surface and groundwater resources, would be affected as a result of the disposal of ash to the ADF.</p> <p>The geohydrology study states in Section 7.2.2 that: “Previous modelling indicated some plume movement towards the river, but with water levels manipulated to the elevation of 1525, the total ground water flux will take place towards the pit, and not to the receiving environment”. It is of utmost importance that this information is included in the IWULA or IWWMP to ensure that the necessary measures that will be implemented can be monitored to determine its effectiveness to ensure that the pollution plume will not reach</p>	I

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	the Wilge River, or groundwater resources of other water users.	
<ul style="list-style-type: none"> ○ There is no attempt to identify and quantify primary and secondary source terms responsible for current groundwater pollution; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ○ No information could be found regarding the acid generating potential of the material currently in the pits; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ○ No geochemical modelling has been performed to compare the current scenario with the proposed future scenarios; and 	Section 6.2 of the IWWMP states that “ <i>Simulated ash was analysed to define the chemical composition of the ash dam and identify potential contaminants</i> ” and “ <i>The geochemical modelling and leachate characterisation provided the basis for the impact assessment of the ash facility. Potential leachate migrating through the proposed barrier system into the natural ground water was simulated in a ground water dispersion model to determine what the resultant change in ground water quality would be, how far the change would be experienced and who might be impacted by the change.</i> ” However, information relating to this “ <i>ash analysis, geochemical modelling and leachate characterisation</i> ”, was not included in the IWULA or IWWMP.	I
<ul style="list-style-type: none"> ○ There is no information available on evaluating alternatives with regard to cover options, or the process followed to choose the preferred option. 	Although alternatives were considered as part of the EIA/EMP process (separate report) and in the surface water impact assessment (Section 7) this has not been summarised or presented in the IWULA or IWWMP. It was stated in Section 4.7.2 of the IWULA that all the PCDs at the ADF are classified as Class A and therefore the liners for these dams are based on the requirements prescribed by the DWS. The liner or barrier design for the ADF will be governed by the waste classification of the ash material in accordance with DEA’s waste classification regulations for the disposal of waste and the regulations governing the design of waste disposal facilities. However, this information, which is necessary to determine if mitigation against groundwater contamination is adequate, was not included in the IWULA or the IWWMP	I
Par 2.7.1.3 states that “a separate EA process” is underway for water supply pipelines, and indicates that “other sources” of water supply are under investigation. This is unacceptable, as the DWA cannot be expected to issue a WUL if the source of water for the project is still not finalised;	The IWWMP states in Section 2.2.2.1 that “Three water sources have been proposed to supply raw/potable water to the proposed KiPower IPP power plant and Delmas Coal Mine North and South Shafts”. The Comments register contradicts this, stating that Delmas Coal will be responsible to provide water to KiPower. If Delmas Coal is to be responsible for water supply to KiPower, contractual arrangements to reflect the relationship between KiPower and Delmas Coal in this respect should have been included in the IWULA.	I
The establishment of limit values for surface water quality is discussed in par 3.6.1 on p53. However:		
<ul style="list-style-type: none"> ➤ There is no discussion of the limit values for groundwater 	Although the groundwater quality reserve is discussed in the groundwater specialist study there is no discussion of the limit values for groundwater in the IWULA or the IWWMP. Limit values are not only specified for groundwater, but also to establish the potential groundwater impacts as a result of the land-based disposal of waste. Liner systems are fallible, and limit values for potential future impacts of groundwater should be specified to determine thresholds for intervention.	I
<ul style="list-style-type: none"> ➤ The report does not specify the water quality limits that will be used to 	Section 4.1.6 states that: “ <i>During rain events exceeding the 1:50 flood event, or when a</i>	I

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determine the suitability of water to be discharged from the Temporary PCD into the river during the construction phase;	<i>series of large flood events occur over a short period, the PC dams and recycle ponds may become filled to capacity. For such events, the power plant will discharge treated water from the waste water treatment plant in order to manage water levels in the PC dams and recycle pond. The discharge of treated water will ensure that such a discharge meets the Interim RWQOs of the Wilge River and will prevent polluted spillage from the PC dams and recycle pond</i> ". These limit values are however not specified, and not evaluated and updated based on the site-specific conditions. In addition, maximum discharge volumes from these ponds should have been determined based on maximum expected rainfall events – there are more than enough data on this available, it does not even require empirical research to establish these volumes, and it is unclear how a pipeline or channel can be designed without knowing the volume of water it will have to contain – this implies a design for failure and spillage.	
➤ The “clean water management” system described in par 2.7.3.5 is not in accordance with the principle of pollution prevention, as water from areas “where no spillage is expected” will be discharged into a surface water resource without verification that the water is in fact uncontaminated;	Comment has not been addressed, and is still valid	I
➤ The water balances in Figure 2-9 on p 36 and Fig 4-6 on p96 are illegible, and do not indicate total volumes of water abstracted/obtained from each identified source, total volumes of water consumed, and total volumes of water that require discharge or disposal under different seasonal or operating conditions;	The water balance included in Figure 4 -11 is now more legible. Section 4.8 explains that the total water supply requirement for the power plant including potable water, on an annual average basis, is approximately 1 096 m ³ /day. This water will be supplied by SamQuarz and Rand Water. The split between these two sources of water is dependent on the availability of water from SamQuarz (which is seasonal in nature).	A
➤ With regard to the description of the activity, no information could be found relating to the decommissioning of the Power Plant and the ADF – there is no future and use objectives specified, no closure and decommissioning activities listed or assessed, and closure and rehabilitation costs and measures were not determined;	Section 7.5 of the IWWMP now summarises the Rehabilitation Plan. <i>“Rehabilitation of KiPower facilities is a key focus to ensure sustainability of the area for future users. It is important for these areas to be shaped so that they are free draining and that the topography represents that of the pre-development area, in so far as is practically possible at the point of decommissioning.”</i> Closure and post-closure activities associated with the Power Plant and ADF is presented in Table 7-4. Closure and rehabilitation costs and measures were not determined	I
➤ The gaps in the specialist studies regarding the water environment supporting the application, as pointed out in the EIA/EMPr assessment, are still relevant and lead to a lack of adequate impact identification, which causes the determination of cumulative impacts to be questionable;	Comment has not been addressed, and is still valid	I
➤ Impacts arising from non-standard operating conditions, accidents and emergencies were not identified or assessed;	Only two(2) non-standard operating conditions were identified: <ul style="list-style-type: none"> • contamination of water resources due to spillages of raw materials during emergency road haulage during the operational phase have been identified, • contamination of surface water as a result of leaks and spills from dams, canals and pipelines, 	I

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<ul style="list-style-type: none"> ➤ With the lack of a proper baseline description, and the gaps in impact identification, the impact assessment is incomplete, and this implies that no determination can be made as to the effectiveness of proposed mitigation measures; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ➤ The IWULA Report does not identify, describe and investigate the potential adverse effects of mitigation measures, does not consider the potential for conflict between the benefits of mitigating measures and their adverse impacts, and does not discuss alternatives for mitigation; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ➤ The Report does not provide substantiated reasons for selecting the proposed mitigation measures, nor does it motivate how the preferred mitigation measure can be regarded as the BPEO; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ➤ As the IWULA does not contain an IWWMP Action Plan, there is no information on objectives for rehabilitation or for closure, which is a serious gap, considering that this proposed development is on a brownfields site; 	An IWWMP Action plan was developed as a separate document. Section 7.5 of the IWWMP summarises the Rehabilitation Plan: <i>“Rehabilitation of KiPower facilities is a key focus to ensure sustainability of the area for future users. It is important for these areas to be shaped so that they are free draining and that the topography represents that of the pre-development area, in so far as is practically possible at the point of decommissioning.”</i> Closure and post-closure activities associated with the Power Plant and ADF is presented in Table 7-4.	I
The IWULA Report does contain some proposals towards water quality monitoring and “biodiversity monitoring” in par 8 from p143 onward. However, the following gaps exist in the description of the monitoring programme:		
<ul style="list-style-type: none"> ○ No coordinates of monitoring locations are provided; 	The coordinates were included in Table 8-1 of the IWULA for the surface water monitoring points and Table 8-3 for the monitoring boreholes.	A
<ul style="list-style-type: none"> ○ No methodologies are specified for groundwater monitoring 	The IWWMP and IWULA only refers to a grab sample that will be taken. This is not suitable for appropriate groundwater sampling, as “restwater” in the top of the borehole is being sampled, and not the water in the aquifer – methods prescribed by the relevant SANS codes should be followed.	I
<ul style="list-style-type: none"> ○ No motivation is provided to explain the selection of locations for surface- and groundwater monitoring; 	Table 8-1 provides a description of the proposed surface water monitoring point which explains the reason for the selection. Table 8-3 provides a description of the boreholes which explains the reason for the selection of groundwater monitoring points.	A
<ul style="list-style-type: none"> ○ No monitoring programme for water quantity is proposed; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ○ No locations or monitoring indices for bio-monitoring are indicated; 	Although the locations of the aquatic monitoring sites are provided in Figure 8-3 of the IWULA and it is stated that the annual aquatic monitoring of the Wilge River upstream and downstream will be undertaken, the coordinates are not provided.	I
<ul style="list-style-type: none"> ○ No description is provided of a management system for the capturing, storage and interpretation of monitoring data and information; and 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ○ It is not possible to determine if monitoring arrangements are aimed at measuring identified impacts or risks and the effectiveness of mitigation and management measures, as the purpose and objective of the monitoring programme is not outlined. 	The objectives of the monitoring plan is now outlined in Section 8	A

Comments on draft report	Comments addressed in final IWULA	C/A/I
<ul style="list-style-type: none"> ➤ The IWULA does not contain management commitment to the implementation of the IWWMP Action Plan or of proposed mitigation measures; 	The IWWMP includes a signed copy of the management commitment in Section 12 of the IWWMP. This is however not included in the WULA	A
<ul style="list-style-type: none"> ➤ Legal implications of the implementation of the IWWMP Action Plan or of proposed mitigation measures, such as the need for EIA Authorisation for the construction of mitigation measures, have not been addressed; 	Comment has not been addressed, and is still valid	I
<ul style="list-style-type: none"> ➤ The Report does not give prominence and emphasis to severe adverse impacts, to substantial environmental benefits, and to controversial issues. Most noteworthy is the failure to assess impacts on other water users. Also concerning is the failure to assess the spatial and temporal extent of impacts on surface and groundwater. 	The IWWMP highlights the results of the Risk Assessment in the Synopses. However, the Risk Assessment failed to assess impacts on other water users, and to assess the spatial and temporal extent of impacts on surface and groundwater.	I
The IWULA Report does not draw an overall conclusion regarding positive and negative aspects, does not contain an opinion whether the activity should be authorised or not, and does not make relevant recommendations, in particular regarding proposed licence conditions	The IWULA Report concludes that the project will result in negative impacts but these can be mitigated with design and operational measures. It emphasises that positive impacts can be enhanced with proper management. It recommends that the mitigation measures outlined in the IWULA and the IWWMP become part of the Environmental Authorisation.	A
The KiPower IWULA does not contain a description of its structure, and the approach and methodology followed in its compilation. It states that a copy of the EIR, which contains the Specialist Studies, is attached as Appendix M, and par 5 on p99 discusses “summary findings” of the specialist studies, but no detail is provided regarding which of these Specialist studies is relevant for the IWULA.	The methodology followed for the IWULA is included in Section 1.7. The structure of the IWULA is set out in Section 1.8. The approach and methodology followed in the development of the IWWMP is not included in the IWWMP. Section 5 states that although several specialist studies were undertaken, only those related to water and biodiversity were summarised in this section.	A
Par 3 on p 49 is entitled “Present environmental status”, however, this section is inadequate: There is no description of the social, economic and cultural aspects of the environment that may be affected by the proposed activity. A description of the bio-physical environment is provided, however, the baseline environmental conditions have not been described to the required level of detail, for example, there is a serious lack of site specific information on soil and groundwater conditions at the project area.	A summary of the social and socio-economic baseline study are included in Section 3.7 of the IWULA and in Section 5.9 of the IWWMP. Information on the biophysical components were included and updated in Section 5 of the IWWMP and include information on the wetlands, soil and air quality. However, although a groundwater study was undertaken by JMA, the relevant information on background water quality was not included except for the statement made that the water quality is “good”, which is scientifically incorrect, and which contradicted by actual knowledge.	I
Although properties are listed in par 2.5 on p 14 , there is no reference to the Title Deed numbers, and the reference to property names are incorrect (e.g. “Haverglen 269 IR rem of 269” instead of “Remaining Extent of the farm Haverglen 269 IR”). No indication is given of existing mining rights or relevant servitudes, and the map which indicates the location of each of these properties (Fig 2-2 on p17) is illegible.	Comment has not been addressed, and is still valid	I
Paragraphs 2.6, 2.7 and 2.8 describe the proposed activity, but do not describe the current situation adequately, and give no indication of proposed instructional arrangements for water management.	Comment has not been addressed, and is still valid	I

Comments on draft report	Comments addressed in final IWULA	C/A/I
<p>Par 2.7.1.3 states that “a separate EA process” is underway for water supply pipelines, and indicates that “other sources” of water supply are under investigation. This is unacceptable, as the DWA cannot be expected to issue a WUL if the source of water for the project is still not finalised. The “clean water management” system described in par 2.7.3.5 is not in accordance with the principle of pollution prevention, as water from areas “where no spillage is expected” will be discharged into a surface water resource without verification that the water is in fact uncontaminated. The water balances in Figure 2-9 on p 36 and Fig 4-6 on p96 are illegible, and do not indicate total volumes of water abstracted/obtained from each identified source, total volumes of water consumed, and total volumes of water that require discharge or disposal under different seasonal or operating conditions.</p>	<p>The IWWMP states in Section 2.2.2.1 that “Three water sources have been proposed to supply raw/potable water to the proposed KiPower IPP power plant and Delmas Coal Mine North and South Shafts”.</p> <p>The “clean water management” system described in par 2.7.5.1 is not in accordance with the principle of pollution prevention, as water from areas “where no spillage is expected” will be discharged into a surface water resource without verification that the water is in fact uncontaminated;</p> <p>The water balance included in Figure 4 -11 is now legible.</p> <p>Section 4.8 explains that the total water supply requirement for the power plant including potable water, on an annual average basis, is approximately 1 096 m3/day. This water will be supplied by SamQuarz and Rand Water. The split between these two sources of water is dependent on the availability of water from SamQuarz (which is seasonal in nature).</p>	I
<p>Par 4.1 indicates that the water uses that require licensing is listed in Table 4-1, which lists requirements for exemption from GN R704 in addition to water uses, although no explicit indication is given that such Exemption is required in addition to a WUL. The establishment of limit values for surface water quality is discussed in par 3.6.1 on p53. There is no discussion of the limit values for groundwater.</p>	<p>The requirement for exemption from GN 704 is not addressed in the final IWULA or IWWMP.</p> <p>Although the groundwater quality reserve is discussed in the groundwater specialist study, there is no discussion of the limit values for groundwater in the IWULA or the IWWMP.</p>	I
<p>The Report does contain an impact assessment, and does describe the impact assessment methodology in par 6.1. However, due to the fact that the Report does not contain an adequate and accurate description of the baseline socio-economic environment, relevant impacts were not identified and assessed, including cumulative impacts.</p>	<p>A summary of the social and socio-economic baseline study are included in Section 3.7 of the IWULA and in Section 5.9 of the IWWMP. The outcome of the social and socio-economic impacts assessment are summarised in Section 5.5 and 6.3.5 of the IWULA.</p>	A
<p>Since the baseline environment, specifically for socio-economics, was not properly described, and impacts and risks were not properly identified and assessed, no judgement can be made regarding the effectiveness of proposed mitigation measures. No alternative mitigation and management measures were assessed.</p>	<p>Although the social and socio-economic baseline study have been included in the IWULA, no mitigation measures are provided to prevent and/or minimise the potential negative impacts on socio-economics</p>	I
<p>Under Appendix L, it is stated that the IWWMP “will be included in the submission to DWA”. This key document is thus not available for public scrutiny, which is a substantial omission, especially as the issues raised by stakeholders should be addressed in the objectives of the IWWMP.</p>	<p>The IWWMP was compiled as a separate document and is now included as Appendix H to the Final IWULA. The IWWMP has taken some of the comments into consideration with the setting of objectives specifically regarding wetlands, pollution prevention, etc., and contains an IWWMP Action Plan. However, this document should form an integral part of the IWULA, as it contains pertinent information for the evaluation of the licence application. As this IWWMP was only made available now, it was not evaluated in detail.</p>	A
<p>Legal implications of the implementation of an IWWMP Action Plan, such as the need for EIA Authorisation for the construction of mitigation measures, have not been addressed.</p>	<p>Comment has not been addressed, and is still valid</p>	I