

Reference	Issue Raised	Raised By	Response
Issues Related to Heavy Vehicle Impact and Road Upgrading, Road Construction and Access			
MAC2	Enquired which roads will be utilised for the hauling of material for construction of the dam wall.	➤ Mr B MacKenzie Department of Transport - Deputy Manager of Roads near Nottingham Road	Section 17.2 states that <i>"for the transport of the material (from the quarry to the dam wall), trucks will be loaded directly in the quarry and then travel down the main quarry road to the R103. From there, the trucks will turn right onto the R103. Approximately 500 m down, the trucks will turn left into the D146. This road leads to the dam construction site. All gravel roads will be upgraded and maintained during construction."</i> Refer to Appendix K for a map which shows the entire MMTS-2 development including the route to be taken from the quarry to the dam wall (the yellow line).
MAC2	Enquired where the additional access if any will tie into the current road network.	➤ Mr B MacKenzie Department of Transport - Deputy Manager of Roads near Nottingham Road	No additional roads will be required. Realignment of the access road to Vaalekop smallholdings and Riverholm farm will be the only changes to the existing roads in the area. Details of the alignment options are given in Section 17.2.
FEL3	Mentioned that the impact of increased heavy traffic on the R103 from both Nottingham Road and Mooi River to the development site could be significant although considered to be "marginal", based on the significant public concern with respect to this issue.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	The project holds no long-term impacts for the primary and secondary road networks with regards to increased heavy traffic on the R103. Expected construction related traffic flow impact is marginal, with less than 10 % addition in traffic. Expected additional traffic loading (less than 20 %) will marginally increase the rate of deterioration of the pavement, with mitigation measures required to ensure proper maintenance of the roadway. The Social Impact Assessment has investigated the social concerns and related mitigation measures proposed.
ZEN4	Enquired what is meant with regravelling of the D146. Road and requested an example where dirt roads have successfully been used for this level of construction traffic without significant impact on local traffic.	➤ Mr J Zelenka Chairman Rosetta Ratepayers and Residents Association	Construction traffic is likely to impact the road conditions on the D146, however the EMP requires that the road is maintained throughout construction phase and rehabilitated after construction. Regravelling is defined as the applying of gravel, reshaping and grading of the road. The report details that the vertical alignment of the roads will be adjusted to no more than 6% (refer to Section 19.2).
FEL3	Requested that the traffic impact assessment should adequately consider the impacts, particularly social impacts, on the R103 during the construction phase, which should take into consideration potential impacts on sensitive receptors such as schools, social facilities etc.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	The traffic impact assessment considers the pavement condition and the impact of increased traffic on the roads. The social impact assessment considers the impact of society as a result of increased traffic, and looks at traffic impacts from a safety perspective and in terms of access with regards to movement patterns (Section 4.2.1) and social networks. (Sections 4.2.4 and 5.5).
FEL3	Requested that the road re-alignment in the dam basin must be adequately considered for social and environmental impacts.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	

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FEL3	Requested that consideration should be given to identifying a single dedicated route for delivery and construction vehicles from the N3 to the development site, taking into consideration the differing impacts of the alternatives.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	Construction vehicles will not significantly impact on the N3 in order to access the development site. Material will be sourced from the quarry and taken to the dam wall via the route detailed in Section 17.2. The D682 will be used to access the pipeline and the Loteni Road to the fish barrier.
Issues Related to Noise Disturbance			
SIN1	Mentioned that there may possibly be noise and rumble resulting from cavitations, etc in the pipeline.	➤ Mr I Sinclair Pam Golding Properties	No complaints have been lodged regarding noise or vibration from the existing MMTS-1 pipeline. The pipe will be laid underground and the compaction of the soil above will mitigate any noise and vibration caused from the water running through the pipe. Air vents will be placed at the apex of pipeline to let air escape the pipeline, which will reduce the noise and rumbling effect.
Issues Related to Stakeholder Engagement			
KAN10	<p>Mentioned that a proper scoping process of the proposed pipeline routes was not carried out. A scoping study was carried out in 2004, which did not examine the proposed pipeline routes. It is therefore with great concern that the pipeline routes were not subjected to this exercise. This should have been carried out, for the following reasons:</p> <ul style="list-style-type: none"> ○ The issues associated with the proposed pipeline routes were never scoped ○ The IAPS along the proposed pipeline routes have almost entirely changed since 2004 as the majority of the properties affected comprise new property owners ○ The presentation to DEAT regarding the application for exemption from various requirements of the EIA process did not inform DEAT that the actual pipeline routes had never before been subjected to a Scoping process ○ DEAT therefore provided any exemptions on a flawed basis and would have insisted on a Scoping process for the proposed pipelines if they had been made aware of this issue ○ The lack of an adequate Scoping process has resulted in an inadequate consideration of alternatives and a lack of support from IAPs along the pipeline route ○ A Plan of Study for Scoping of the proposed pipeline routes was never completed (GN 1183) In terms of the requirements of GN 1183, the following were not complied with in the 2004 Scoping, and were not provided to IAPs affected along the pipeline route: <ul style="list-style-type: none"> 1. a brief description of how the environment may be affected along the pipeline route 2. a brief project description along the pipeline route 3. a description of environmental issues identified 	<p>➤ Mr W Kanz Portion 175 of Springvale</p>	<p>It must be noted this application was launched under the Environmental Conservation Act (ECA) as the application pre-dated the introduction of the new NEMA regulations. An application for exemption from Scoping was submitted to DEAT and accepted by them prior to the commencement of this EIR (Refer to Annexure A). DEAT accepted as part of the exemption all reports prior to 2004, including the main report which does make mention of the pipeline, as equivalent to the scoping report. Mention is made in the main report of the new pipeline required.</p> <p>DEAT accepted the Plan of Study for EIA (refer to Annexure A), which stated: <i>"The Scoping investigation for the pipeline transfer route will be upgraded to full EIA and will consider the biophysical, social, cultural-historic and economic impacts. The public participation programme will run together with the public participation programme for Spring Grove Dam"</i>.</p> <p>A separate scoping study was thus not required. A comprehensive public participation process and specific field investigations for the pipeline took place as part of this EIA.</p> <p>All previous reports were also made available on the website (www.mmts2.co.za) and must be read as part of the EIR.</p> <p>Information pertaining to changes in the area since 2004 has been updated at the commencement of this EIR. Provision is made post ROD to undertake an audit of the area to ensure that any further developments are considered in the detailed design and compensation / expropriation processes</p> <p>These issues have been scoped in the SIA report Appended in Annexure D of the EIR and Supporting document 3.</p>

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	<p>along the pipeline route</p> <ol style="list-style-type: none"> 4. a description of all alternatives identified in terms of the pipeline route 5. an appendix containing a description of the public participation process followed along the pipeline route, including a list of interested parties and their comments 6. The competent authority never reviewed any information in respect of the proposed pipeline route in the 2004 Scoping process <ul style="list-style-type: none"> ○ The time lapse since 2004 has resulted in a number of changes in the area, including approved developments and new issues, which were never scoped during the initial Scoping process ○ In terms of process (Scoping) the original process did not consider the following issues (which have also not been addressed in the EIR): <ol style="list-style-type: none"> 1. Property values 2. Security within secure estates 3. Future development potential 4. Impacts on existing infrastructure on properties (e.g. water pipelines) 5. The merits and demerits of alternate pipeline routes 6. The number of homeowners impacted 		<ol style="list-style-type: none"> 1. Property values (Annexure D: SIA Appendix B Section 12) 2. Security within secure estates (Annexure D: SIA Section 3.2.2. 3. Future development potential (Annexure D: SIA Appendix B Section 10). The entire study revolves around future development and demands for water.) 4. Impacts on existing infrastructure on properties (e.g. water pipelines) (Annexure D: SIA, Section 3.4) 5. The merits and demerits of alternate pipeline routes (Supporting document 3 Section B2 and C3 provides transfer options and infrastructure options of the pipeline. Section 19 of the EIR looks at pipeline alternatives from the dam wall to the existing servitude. 6. The number of homeowners impacted (The study does not look at the number of people impacted but rather at minimising the extent of the impact land owners and the environment will experience.
PAR4	<p>Mentioned that the objections raised were not suitably or satisfactorily dealt with, and several objections made were not recorded in the register even though they were raised on several occasions.</p> <p>An example given is:</p> <p>KAN4: This is a query from Mr W.Kanz – neighbour on the North Eastern boundary of Mziki Estates. He is asking about the proposed route of the pipeline and the alternative routes. (How were they investigated, and what protocol was followed in this investigation and so on).</p> <p>There was no response to this query/objection – why not?</p> <p>JJG comment: –“what is this all about?” –That is the only comment by way of a response.</p>	<p>➤ Mr J Parkinson Mziki Homeowners Association</p>	<p>A number of other examples provided by Mr Parkinson of inaccurate responses were given, including comments that had not been included in the previous IRR. The consultant team apologises for this oversight and has rectified the inaccuracies in the previous IRR and are marked in yellow highlight. These issues have also been restated in this IRR as well.</p> <p>The issue regarding the example given here is a misinterpretation of the previous IRR. The comment raised by Mr Kanz had also been raised by a number of other I&APs listed on the previous page and the answer was given there and the response cells merged to indicate that the answer applied to all. However, Mr Kanz’s comment fell onto a new page and therefore appeared as a separate issue. It was not clear that it formed part of the previous response. The IRR has been reformatted to rectify this confusion.</p>
Issues Related to Stakeholder Biophysical Impacts			
Issues Related to Rehabilitation			
BER1	<p>Mentioned that issues raised during the last pipeline construction were not dealt with and his farm has 3 badly constructed dams made from excess soil; erosion and noxious</p>	<p>➤ Mr J Berning Sub 85 of the farm Springvale No</p>	<p>Issues relating to the previous pipeline fall outside of the scope of this EIA. However, where the new pipeline runs parallel with the existing pipeline an assessment of the state of rehabilitation on the</p>

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	weeds. To this day these issues are outstanding. He enquired who is responsible. DWAF or Umgeni. And requested that the old problems should be sorted before the new problems arise.	2170	existing line will be done prior to construction of the new pipeline. If there are areas seen to be inadequately rehabilitated these will be dealt with as part of the rehabilitation of the new pipeline after construction. Refer to the EMP for mitigation measures relating to the rehabilitation of the new pipeline route.
Issues Related to Wetland Destruction			
PAR2 SIN1	Mentioned that there can be no guarantees as to what will happen when the 'source' of the wetland and dam is disturbed. They mentioned that it is highly likely that the wetland will dry up, and at the very least be disturbed for a period of several years.	<ul style="list-style-type: none"> ➤ Mr J Parkinson Mziki Homeowners Association ➤ Mr I Sinclair Pam Golding Properties 	The wetland referred to has been artificially created as a result of downstream damming of the water course and has been degraded by anthropogenic use of the land. It is therefore not considered a pristine wetland. The pipeline will be laid below the wet area. Any area disturbed during the laying of the pipeline will be rehabilitated and the natural flow to the dam restored. DWAF has a strict policy in terms of wetland rehabilitation in that it must be done to the same state or better.
	Requested that the area of wetland traversed must be considered.	<ul style="list-style-type: none"> ➤ Mr W Kanz Portion 175 of Springvale 	The pipeline will not traverse any wetlands as it will be below ground. Any wetlands that may be affected during the construction of the pipeline have been considered in Section 19.5.3 and the EMP.
FEL3	Mentioned that suitable areas for the wetland rehabilitation were identified in 2004 and both unconditional and conditional land - owner consent was obtained for the rehabilitation of these areas. He enquired whether any follow-up with these landowners (or new landowners) has taken place within the current study.	<ul style="list-style-type: none"> ➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services 	<p>No, this will be done during the pre-construction negotiation processes – post-ROD. It is proposed that the implementing agent obtains a formal agreement from the land owner to ensure the protection of the wetlands.</p> <p>A short follow-up can be conducted after receiving the Record of Decision (ROD) to ensure that the land owners are still the same and to enquire if any additional landowner would be willing to participate in the wetland rehabilitation.</p>
FEL3	Mentioned that the success of the proposed off-site mitigation will hinge on the availability of suitable wetland areas to rehabilitate. The KZN DAEA would find it problematic consenting to the transformation of wetlands (or high conservation value land) without having some form of binding consent (or legal agreement) with affected landowners.	<ul style="list-style-type: none"> ➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services 	<p>A formal agreement will be obtained from the land owner to ensure the protection of the wetlands post ROD. The intended process will include a baseline assessment prior to construction followed by six years of monitoring. Thereafter, the responsibility for the state of the wetland will fall back to the landowner. If required, wetlands are an agricultural resource protected under the Conservation of Agricultural Resources Act and thus any unauthorised activity in the wetland is therefore in contravention of the Act and the DOA can take action against the landowner. In addition, wetlands are a water resource protected under the National Water Act and any activity in the wetland requires a water use license. It should therefore be possible to ensure the protection of the wetlands without obtaining a legally binding agreement on the property.</p> <p>Although DEAT is the lead agent NEMA 24(4)g requires: "coordination and cooperation between organs of state in the consideration of assessments where an activity falls under the jurisdiction of more than one organ of state;" and therefore must bear in mind comments from KZN DAEA but that the decision of</p>

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			consenting the activity ultimately rests with DEAT.
Issues Related to Conservation Areas			
DAV3	Mentioned that Ezemvelo KZN Wildlife published a consultation process notice in terms of NEMA: Protected Areas Act, 2003 (Act No. 57 of 2003) in the Sunday Times (Business Times) of 21.9.2008, stating the intention of the MEC, the Hon Mr. M.E. Mthimkulu, to declare the property the Bill Barnes Crane and Oribi Nature Reserve. As far as rehabilitation and mitigatory measures are concerned, this increase in the land's biodiversity value and status should mean that for MMTS-2, even greater attention is given to the portions of land over which the pipeline servitude is registered namely; Portion 276 (of 85) of the farm Springvale No.2170 and Remainder of Portion 90 (of 24) of the farm Gowrie No.1930. Nature reserve status will enable the KZN Crane Foundation to be eligible to apply for assistance in terms of Govt. funded programmes; and, in fact, the KZNCF has already applied to the SANBI Working for Wetlands Programme in this regard, with the intention of rehabilitating the previously partially-drained wetland on the two portions already mentioned.	➤ Dr Davies A H Rycele Lodge, Rosetta / KZN Crane Foundation	The pipeline in this area will be constructed adjacent to an existing pipeline and is therefore already disturbed. A servitude for the servicing of this pipeline is already registered. The rehabilitation and management measures of the entire pipeline, including the Bill Barnes Crane and Oribi Nature Reserve and other wetland areas should be included in the EMP. In addition, acts can not be applied retrospectively as the servitude was already registered in 1983.
FEL3	Mentioned that the Inchbrakie Falls area has been identified as an area of significant conservation value and plant rescue and relocation project would be required. A potential site for the re-location of plant species has been identified; however the KZN DAEA would find it problematic consenting to the transformation of the Inchbrakie Falls area without having some form of binding consent (or legal agreement) with the affected landowners of the property on which the translocation is to take place.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	The owner of the Reekie Lyn Falls is committed to conservation and prevents any disturbance to the falls. The commitment of the owner to protect the falls and species can be secured in a letter post RoD. There are no legislative tools to use to enforce this. Alternative sites were also identified and presented in the EIA.
Issues Related to Faunal Species Including Sensitive and Red Data Species			
PAR2	Enquired where and how the buck on the Mziki Estate will be displaced.	➤ Mr J Parkinson Mziki Homeowners Association	The buck will move away to a more secluded area during the construction phase of the pipeline, but are most likely to return once construction ceases. These buck have returned to the area after the construction of the houses on the Mziki Estate and should thus do so again after the pipeline construction.
PAR2	Mentioned that the wetland – is a natural breeding ground and we have recorded over 100 species of bird, (further details can be at your disposal - photographs etc) and as such would be seriously impacted upon with the laying of the pipeline – as this pipeline route goes through the upper section of the wetland (that feeds into the main area) the impact is far greater than if it were at the lower end.	➤ Mr J Parkinson Mziki Homeowners Association	The wetland on Mziki Estates is an antropogenic wetland and not a natural breeding ground. Birds are opportunistic in nature and likely to return once the wetland has been rehabilitated. The EMP deals with the construction aspects through wetlands. The most disturbed route through the wetland will be used which is the intention of the wide corridor included in the EIA. Once construction of the pipeline ceases the birdlife should return to the area as rehabilitation will bring the area back in line to the original state or better. The lower section of wetland is much wetter than

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			the upper section and thus the impact will be far greater on the lower end. The natural flow of the wetland will, if disturbed during construction, be restored.
Issues Related to Vegetation			
KAN10	Mentioned that the ecological assessment states that "A floristic survey where all plant species were noted" was conducted. He mentioned that the site visits to the pipeline (by the ecological specialist) were conducted on 7 and 8 May 2007, a time totally unsuitable for the identification of plants and assessment of vegetation (on account of dormancy of plants and limited opportunities for the identification of plants), apart from a very basic screening type of exercise. Indigenous grassland within Mr Bettison's property has not been identified, clearly illustrating that the study was incomprehensive. The I&APs insist that if the grassland in Mr Bettison's property is to be impacted that a botanical survey is conducted in November 2008 to ensure that no important plant species are impacted	➤ Mr W Kanz Portion 175 of Springvale	Site visits were conducted by the specialists on 5 January 2007, 18 February 2007 as well as 11 June 2007 in addition to the field assessments done on 7 and 8 May 2007. Mr Bettison's property was evaluated and although indigenous grassland were found, these had been previously impacted by anthropogenic activities and is thus considered as disturbed (Annexure B: Ecological Study Section 7). The grassland will be rehabilitated after construction and a list of species for rehabilitation has been included in the EMP (Annexure G).
Issues Related to the Environment			
KAN11	<p>Mentioned that the actual hydrological and ecological impacts of a catchment transfer scheme have not been evaluated.</p> <p>Mentioned that no impact assessment has been carried out considering aquatic impacts downstream, and that no impact assessment has been carried out considering aquatic impacts within the adjacent catchment that will receive the water.</p> <p>Mentioned that no attention has been paid to the following considering downstream habitats, which are required for an EIA on an inter-catchment transfer scheme:</p> <ul style="list-style-type: none"> ○ Impacts on invertebrates as a result of changes in river flow ○ Changes in peak flows downstream ○ Alteration of hydrological regime ○ Changes in community structure associated with the impoundment and transfer stream ○ Impacts via disruption to trophic pathways ○ Introduction of alien fish species ○ Impacts on fish breeding areas e.g. changes in seasonality of flow impacts on fish breeding beds ○ Increased flood risk 	➤ Mr W Kanz Portion 175 of Springvale	<p>The hydrological analysis of the MMTS-2 was undertaken and findings presented in Supporting documents 1 & Bridging Study 5, which form part of this EIR. A summary and expansion of these analyses was included in this IRR (please refer to Section 13.3.1 & 2).</p> <p>The ecological assessment of the MMTS-2 was carried out as part of this EIR and the specialist report appended in Annexure B. As part of the ecological report a summary of all previous studies is included, specifically the pre-feasibility study for the Spring Grove Dam.</p> <p>Section 9 of the Ecological report attached as Annexure B details the downstream impacts of the dam and the Receiving streams EIA and EMP details the impacts of the MMTS-2 on the Mpofana River. All previous studies form part of this EIR although they have not been attached. These reports were made available on the website (www.mmts2.co.za).</p> <p>Refer to all supporting documents and bridging studies as well as the specialist studies appended to this EIR. These studies deal with invertebrates, changes in the river flow downstream and in the receiving streams, social networks and movement patterns, concerns regarding the mixing of indigenous and alien fish species (thus the need for the fish barrier), aquatic habitats, water quality and many more ecological and hydrological / water resource issues and impacts relating to the list provided by Mr Kanz.</p>

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	<ul style="list-style-type: none"> o Alteration of habitats and ecology o Introduction of aquatic organisms o Changes in water quality o Changes in sediment loading o Water temperature changes o Water nutrient changes o Introduction of fish disease o Impacts on nesting birds downstream o Ecological impacts of inter-basin transfer o Baseline surveys should be carried out for insects, Fish , Aquatic, and terrestrial plants and animals o The disease and parasite status of fish populations in the donor and receiving rivers should be determined o The impact of the impoundment on the downstream ecology of the Mooi River o Generic biodiversity and heterogeneity <p>Mentioned that in the light of the above ,it is their contention that this further strengthens the need to complete additional study and afford IAPs reasonable review periods of an amended draft EIR that incorporates all of the above impacts\ Issues.</p>		
EZW1	<ol style="list-style-type: none"> 1. A detailed rehabilitation and management plan for the portion of the pipeline crossing the proposed Bill Barnes Crane and Oribi Nature Reserve. 2. Wetlands crossed by the pipeline should be included in the rehabilitation and off-set plan. 3. The quarry should be rehabilitated to grassland on closure and should not be used again. 4. The relocation plan for relocating the species of concern from the Inchbrakie Falls to the Reekie Lyn Falls should include the relevant legal mechanisms to ensure the long term management of the site. 5. An educational programme for smallmouth bass should be implemented for the proposed fish barrier weir. 6. Operation Noah: detailed plans for the proposed sweeps and rescue programme should be submitted to EKZNW and should include species lists, timeframes, release areas, and acquisition of release areas. This plan must be approved by EKZNW before commencing with construction. 7. If Strathern Farm is used as a release area a rehabilitation plan for the farm should also be included, 	<p>➤ Ezemvelo KZN Wildlife</p>	<ol style="list-style-type: none"> 1. The pipeline in this area will be constructed adjacent to an existing pipeline and is therefore already disturbed. A servitude for the servicing of this pipeline is already registered. The rehabilitation and management measures of the entire pipeline, including the Bill Barnes Crane and Oribi Nature Reserve and other wetland areas should be included in the Environmental Management Plan (EMP). 2. The wetlands crossed by the pipeline will be rehabilitated as stated in the EMP. The wetlands are therefore not included in the wetland offset plan. Details of the wetland rehabilitation should however be provided in a wetland rehabilitation document to be drawn up as part of the EMP – Post RoD to be approved by KZN Wetland Forum. 3. The quarry will be rehabilitated after excavation and it will be permanently closed. However, it cannot be backfilled to its original state as another site will then have to be disturbed and excavated to fill this quarry. 4. The owner of the Reekie Lyn Falls is committed to conservation and prevents any disturbance to the falls. The commitment of the owner to protect the falls and species can be secured in a letter. There are no legislative tools to use to enforce this.

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	<p>since this farm is disturbed.</p> <p>8. The off-site mitigation report was conducted in 2003/2004 and a concern was raised that the land owners may have changed in the mean time.</p> <p>9. A rehabilitation ratio of at least 1:5 is recommended for rehabilitation instead of the 1:1 and 1:1.5 ratios suggested in the report to ensure no net loss of wetlands in the area.</p> <p>10. The choice of wetlands to be rehabilitated was based on the willingness of landowners and not on wetland classification and functions.</p> <p>11. The loss of wetland in the dam basin will be permanent, hence the offsite mitigation. The conservation of the wetlands therefore needs to be ensured in perpetuity by insuring legal monitoring on the property, not only an agreement with the land owner.</p> <p>12. The offset report did not state which zones of the wetlands will be rehabilitated this should be indicated. A buffer of 30 m should also be ensured around the wetlands where no development may take place and a 50m ecological buffer where the spraying of pesticides, fertilizers and other chemicals are prohibited.</p> <p>13. Since the offset identified did not even meet the 1:1 ratio proposed in the report information should be provided on how the offsets will be obtained, how the offset will be defined, and the budget that will be set aside for legal and institutional arrangements.</p> <p>14. Offset is only proposed for the wetland areas that will be lost and not for the loss of grasslands and Red Data species habitat. The following should be included: an adequate offset ratio, sufficient habitat for Wattle Crane and Oribi, representative grassland type, slope and area and the area should be linked to existing protected areas or areas identified in the proposed National Protected Areas Expansion Plan.</p> <p>15. The Environmental Site Management and Rehabilitation Plan should be submitted to EKZNW.</p>		<p>5. The Smallmouth Bass education programme cannot be conducted by signs and billboards at the weir, due to the aesthetic considerations and the fact that the relevant Interested and Affected Parties (I&APs) do not want it at the weir as it will create a problem to them. It is proposed that the education programme is conducted through brochures, exhibitions at information centres and possibly talks at schools. Ezemvelo KZN Wildlife can run such a programme</p> <p>6. It is proposed that the specifics for Operation Noah is only be finalised once the detailed planning for construction is underway after approval. Only then will detailed information be available such as routes of construction roads and construction timeframes. A species list should however be provided as well as a release area.</p> <p>7. Strathem Farm will be rehabilitated through the discontinuation of disturbance factors and natural succession will take place. Where necessary grass seeding can take place.</p> <p>8. A short follow-up can be conducted after receiving the Record of Decision (ROD) to ensure that the land owners are still the same and to enquire if any additional landowner would be willing to participate in the wetland rehabilitation. Re-doing the offset report would delay the already overdue process further and would be costly to the public.</p> <p>9. A large extent of wetland areas will be destroyed by the construction of the dam. It was very difficult to find wetland areas to rehabilitate where the land owners are willing to participate. Although it is possible to expropriate land in cases where projects is for the public good, the expropriation of land for wetland rehabilitation will be difficult to motivate, costly and very time consuming. There is therefore not enough land available to rehabilitate the wetlands to the ratio of 1:5. There are currently no guidelines in KZN on offsets ratios. The only guidelines in South Africa are the Western Cape biodiversity offset guidelines that propose an offset of 1:10 to 1:30 for threatened ecosystems and no offset for non-threatened ecosystems. This offset ration may be reduced by up to 50% if the system is disturbed. It should however be noted that no offset ratio is given for wetland that are not threatened. Furthermore, is that at the time of the investigation in 2004 the offset ratio required was 1:1 and 1:1.5 for disturbed and pristine wetlands respectively. These ratios were mentioned at all public meetings in the past. This comment comes at a very late stage in the project. Attention is also drawn to the National programme for wetland rehabilitation in South Africa should such rehabilitation work be required to extend further than the immediate study area.</p> <p>10. As stated above all available wetlands will be rehabilitated and</p>

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			<p>there is no choice in which wetlands should be rehabilitated. The wetlands are however superficially similar to those being destroyed.</p> <p>11. A formal agreement should be obtained from the land owner to ensure the protection of the wetlands. It should however be noted that wetlands is an agricultural resource protected under the Conservation of Agricultural Resources Act. Any unauthorised activity in the wetland is therefore in contravention of the Act. In addition, wetlands are a water resources protected under the National Water Act and any activity in the wetland requires a water use licence. The protection of the wetland is therefore ensured by two acts, one of which resides at DWAF. It should therefore be possible to ensure the protection of the wetlands without obtaining a legally binding agreement on the property.</p> <p>12. The rehabilitation is proposed for the entire wetland, therefore all the wetland zones present. The aim of the rehabilitation is to restore the hydrology and natural functioning of the wetland. The proposed buffer zones should be included in a separate agreement with the land owner</p> <p>13. The offset falls short to the ratio proposed by EKZNW because no further landowners could be found that were willing to have their wetlands rehabilitated. The rehabilitation of the wetlands on site will be included in the construction tender and the contractor will therefore be responsible for the rehabilitation of the wetlands. The contractor has to complete all the work in his contract. The budget for rehabilitation is included in the budget of the dam. Therefore, if there are not sufficient money the dam cannot be built. Responsibility for the monitoring of the wetlands will however have to be cleared up and financial provision made for this. DWAF may enter an agreement with Department of Agriculture (DOA) to ensure that monitoring of the wetlands take place, since the monitoring of agricultural resources is part of the DOAs mandate. It should however be noted that since this is a DWAF wetlands offset project the responsibility remains with DWAF to rehabilitate and monitor the wetlands.</p> <p>14. Large portions of grassland are still present in the areas surrounding the proposed dam site. It was therefore not deemed necessary to propose grassland offset sites for the loss of the grassland that will be inundated.</p> <p>15. The Environmental Site Management and Rehabilitation Plan will be submitted to EKZNW for approval prior to construction.</p>
Issues Related to the Location and Construction of the Spring Grove Dam			
BAR1	Mentioned that both the donor and receiving basins must be optimally benefitted by the MMTS-2. Of importance is the reliance for water governance on catchment management	➤ Mr CE Barnard Duard Barnard & Associates	The start of the MMTS-2 planning legally started prior to the NWA promulgation, which makes provision for CMAs and thus cannot be applied retrospectively. The impacts and benefits of the MMTS-2

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	agencies (CMAs). Strictly speaking an inter basin transfer can only be decided upon once catchment management strategies and agencies are in position as this is the most important manner to establish what the needs of the communities in the catchment are. In the absence of a CMP the application for an inter basin transfer must undertake an investigation into the information essential to the preparation of a catchment management strategy for both the receiving and donor basins. This is essential if the aims of the relevant legislation are to be achieved. What emerges from this principle is that the different land use options should be evaluated in order to establish their relative merits. This would enable an informed decision to be made. The merits of the different land use options would be determined by the extent of their relative yields. Such yields making up the total advantage is not restricted to the short term financial yield of the option but also includes all other short and long term benefits such its beneficial holistic or ripple value, the value that the protection of biodiversity could add to the project, non-financial or spiritual values and all other social, economic and environmental values.		are dealt with in this EIA and in the Receiving Streams EIA.
Issues Related to Land Use Zoning, Spatial Development Frameworks and Town Planning			
KAN10	Mentioned that he has existing servitudes on his property (two Eskom power lines, with 12m and 30m servitudes respectively). And indicated that more servitudes would further prejudice Portion 175 of Springvale and would render one of the four recently approved subdivisions unsalable on account of geometry of servitudes reducing developable areas. DWAF would have to expropriate the entire plot at market value if the pipeline is to traverse across the middle of this new subdivision	➤ Mr W Kanz Portion 175 of Springvale	A slight adjustment to the pipeline route has been made since the last public review. The adjustment takes into consideration the views of Mr Kanz and the pipeline route has been re-aligned to run along the property boundary as indicated in Figure 19.2 of the EIR.
MKH1	Mentioned that he is the title holder of the Deed of Transfer T 05 22975. He mentioned that he was not aware that there was an additional servitude for a new pipeline across existing servitudes under the aforementioned Deed of Transfer. He mentioned that he has referred the matter to his attorney for clarification.	➤ Mr S Mkhize IWR	The servitude of aqueduct has not been registered. It is the intention of the EIR to investigate the most environmentally appropriate corridor in which the pipeline should be placed. Once the ROD has been given and negotiations with land owners completed, can the servitude of aqueduct be registered.
Issues Related to Aesthetic Value			
PAR2 SIN1	Mentioned that the eye-sore of having concrete breather structures at regular intervals – right in line of sight of all the houses on the Mziki Estate (they are all West facing across the dam, wetland and adjoining grassland – precisely where the pipeline is proposed to run) would influence the value of the properties.	➤ Mr J Parkinson Mziki Homeowners Association ➤ Mr I Sinclair Pam Golding Properties	Breather structures area only required at a change in elevation of the pipeline and thus the shortest, straightest, most level route is the most preferred engineering route. Such breather structures will be painted or screened by natural vegetation to blend into the surroundings as far as possible and will therefore not impact on the aesthetics of the area or the value of the properties.
Issues Related to Service Providing			
KAN10	Mentioned that there is a need for an upgrade of the sewage and water treatment works in Rosetta, he enquired whether	➤ Mr W Kanz Portion 175 of Springvale	This is a matter for Umgeni Water and the Mpofana Local Municipality as custodian of the sewage and water treatment works

Reference	Issue Raised	Raised By	Response
	they would be upgraded as part of the proposed dam construction. He mentioned that the R 22 million that would be required for 440 houses would be better spent on such service infrastructure. The tarring of the access road to the dam wall could also be included in such funding.		and service provider in Rosetta. It is suggested that Mr Kanz raise his issue directly with them. It is however, understood that Umgeni Water is currently undertaking a feasibility study for water supply only in this regard.
Issues Related to Contractors Camp			
KAN10	Mentioned that the effluent generated on the site would require a treatment works rather than septic tanks. He requested a confirmation of what is currently proposed, and how this will be addressed in the EIA.	➤ Mr W Kanz Portion 175 of Springvale	It is not clear to what Mr Kanz refers. The mention of septic tanks in the EIR relates to existing developments with septic tanks systems and the impact these may have on the quality of the water in the dam. Chemical toilets will be provided during the construction phase of the project and the EMP makes provision for the maintenance of such facilities.
KAN10	Requested details of the construction camp.	➤ Mr W Kanz Portion 175 of Springvale	The construction camp will be located on portions 233 and 234 of Springvale Farm The exact details of the construction camp on Springvale will be determined at the detailed design stage but mitigation measures relating to, for example, security and visual impact have been included in the EMP, i.e. the site must be fenced and screened with shade cloth and 24 hour security must be provided.
FEL3	Mentioned that details of the nature, location and activities to be undertaken at the construction camp have not been adequately provided. It is assumed that the storage of hazardous materials, a concrete batching plant, housing, stores, water supplies, electricity supplies etc would all be required at this site. He requested that the issues and impacts associated with the construction site need to be identified and considered.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	Refer to the Annexure G: EMP Section 5.2 the Environmental Site Management and Rehabilitation Plan. The construction camp, stores, batching plant, etc have been listed as activities that must be included and a position agreed with the ECO. This can only occur during the detailed design phase (Post RoD).A number of subsections under Section 6 address construction specifications for the construction camp, batching plant, hazardous material,etc.
Issues Related to Impact on Adjacent Properties			
PAR2	Mentioned that Mziki Estate which by nature is residential and was purchased by each owner based on the view of the wetland that each property looks onto (as their main view), has a real issue of property value.	➤ Mr J Parkinson Mziki Homeowners Association	These properties lie on the pipeline route and as the pipeline will be buried and any protruding features screened/painted to blend into the surroundings there will be no long-term impact to the view from the properties mentioned. A temporary impact will occur during the construction phase until rehabilitation and the re-establishment of vegetation. Again note that DWAF will ensure that rehabilitation results in an equal or better condition of the wetland.
MAC2	Mentioned that no reference is made to D146 which is very close to the dam and which could be affected.	➤ Mr B MacKenzie Department of Transport - Deputy Manager of Roads near Nottingham Road	See Section 17.2 which mentions in detail the impact on the D146. This road will be the main access road to and from the dam wall and construction site. The road will not be affected by the dam. The road will be maintained throughout the construction process and rehabilitated after construction
ZEN4	Mentioned that the neighbouring properties will suffer construction noise, traffic, etc, and enquired what can be done about it.	➤ Mr J Zelenka Chairman Rosetta Ratepayers and Residents Association	Neighbouring properties will only be affected by the noise of construction vehicles and traffic on the D146 although this is not considered as a significant impact. The EMP includes efforts to reduce these impacts, such as ensuring that construction vehicles are in good working order, abiding by the speed limits and that

Reference	Issue Raised	Raised By	Response
			regular watering of the road reduces the impact from dust. However, this is a short term impact and once construction is complete the road will be rehabilitated and conditions will return to pre-construction state.
Issues Related to Fishing rights, riparian rights, and fish weirs			
STE6	Mentioned that the conflict between the building of the fish barrier in light of the new government drive to eliminate trout as an alien fish, should be fully explored (why build a fish barrier then?)	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	There are currently no laws that require trout be removed from streams and thus I&APs can use the presence of such fish in the Mooi River as a source of income. Construction of the MMTS-2 will impact on these I&APs. Refer to the Bridging Study No. 2 where all the reasons are given why this impact should be mitigated.
Issues Related to Safety and Security			
PAR2	Mentioned that the drop in value of the Mziki properties is due to the perceived lack of security due to the fact that there will be 'outsiders' servicing the pipeline and having access to the servitude. Mziki currently have the estate fenced off with electric fencing, and the servitude would compromise this. People do not want to buy into a place like Mziki Estates, if there is not sufficient security.	➤ Mr J Parkinson Mziki Homeowners Association	Refer to the Annexure G: EMP for issues relating to security (Section 6). It is envisaged that the procedure during the operational phase for maintenance purposes will be similar to any other contractor that may be required on site. During construction, the construction area can be temporarily fenced off to prevent labourers accessing the remainder of the Estate. Construction activities are limited to daylight hours and no construction workers will be allowed to stay on site. All workers will return to the construction camp daily. Construction workers will be appropriately clothed for identification purposes and will carry with them at all times their identification cards with the contractors' details. Very little access would be required for maintenance during service life of the pipeline. One or two days a year at most.
SIN1	Mentioned that there will be security concerns to the Mziki estate residents during the construction phase and subsequent maintenance life of the pipeline, access to the property..	➤ Mr I Sinclair Pam Golding Properties	
Issues Related to Pipeline Construction			
SMI3	Mentioned that the following properties will be adversely affected by the proposed pipeline in that it will reduce the value of their properties which are located in the development node of Nottingham Road/Rosetta: 1 Rolf Bettison 96 of the Farm Springvale 2170 2 Derek Greene 97 of the Farm Springvale 2170 3 Graham Craggs 287 (of 174) of the Farm Springvale 2170 4 Ian Lawson 288 (of 174) of the Farm Springvale 2170 5 Norman Bauer 289 (of 174) of the Farm Springvale 2170 6 Parkstan CC 290 (of 174) of the Farm Springvale 2170 7 Greg Henry 291 (of 174) of the Farm Springvale 2170 8 Tom Groesser 292 (of 174) of the Farm Springvale 2170 9 Ilma Dickson 293 (of 174) of the Farm Springvale 2170 10 Keith Jones 294 (of 174) of the Farm Springvale 2170 11 Ewen Cameron 295 (of 174) of the Farm Springvale 2170 12 Wolf Kanz 174 of the Farm Springvale 2170	➤ Mr GMS Smith Venn Nemeth & Hart	On the contrary, dams in general are considered to attract people to the area and thus could increase the value of these properties. The proposed pipeline will be buried and the area rehabilitated and thus should not negatively affect the value of the properties. The pipeline is not expected to affect some of the properties listed at all and those that will be affected will be temporarily during the construction of the pipeline.

Reference	Issue Raised	Raised By	Response
SMI3	Mentioned that alternate pipeline routes have been pointed out which would not adversely affect the installation of the pipeline and which, in fact, would be preferable. The alternate routes have been assessed by independent consulting engineers, Kantey & TEMPLER, and found to be suitable for the purpose of the pipeline. The proposed alternate route, details of which have been given to you, will only impact on two properties which are zoned for agriculture. The owners of the two properties indicated that they have no intention of developing their properties and intend retaining them for the purposes of agriculture. This is in contrast to their clients, who intend further developing their properties and will be severely prejudiced by the proposed pipeline.	➤ Mr GMS Smith Venn Nemeth & Hart	Many pipeline alternatives have been accessed including those pointed out by I&APs throughout the process. The preferred pipeline route has been selected based on environmental preference and not only engineering preference. The route evaluated by consulting engineers Kantey and TEMPLER is not considered suitable due to the topography and thus the depth that the pipeline would have to be laid at. In order to lay the pipe at this depth a terraced type excavation of the land for the pipeline would need to be done and thus the area of immediate impact would be far greater, not to mention the cost of laying the pipe. The pipeline route has been altered slightly during this revision of the EIR to stick to the property boundary lines, which are mostly impacted by the provisions of a 2 m firebreak and construction of fences, as far as possible. This was not possible across Mziki Estates due to the location of the dam and wetlands. Thus the path selected in this area was over the most degraded section of the wetland, between the gap in the houses close to the pump house and large tree, as agreed by Mr Dickson during the site visit that took place on 8 May 2007.
SMT1	<p>Provided alternative routes for the pipeline route not to go through Mziki Estate and Portion 175 of Springvale No. 2170 and mentioned that no engineering reason were found as to why the alternatives should not be considered.</p> <p>He mentioned that the following were considered when considering alternative pipeline routes:</p> <ul style="list-style-type: none"> ○ Topography - Slope / Gradient / Steepness ○ Geology / rockiness ○ Hydraulic pressure and potential impacts ○ Wetlands ○ Road impacts ○ Available terrain between the R103 and the Brysiewicz property <p>He mentioned that they can see no engineering reason why the alternative routes cannot be considered in the assessment; in fact the route through the Brysiewicz property is suitable for the proposed pipeline.</p>	➤ Mr AM Smith Kantey & TEMPLER Consulting Engineers	<p>In addition, the route through the Brysiewicz property is also considered not suitable due to the location of a very wet wetland, the impact on Mr Brysiewicz's house and the location of the R103 (with resultant significant impact on road users).</p>
KAN10	Mentioned that the I&APS have commissioned an independent engineer to evaluate the constraints on Mr Brysiewicz's property – the conclusions drawn are that the terrain is not too steep, that the geology is workable and that there is sufficient terrain between the R103 and Mr Brysiewicz's property.	➤ Mr W Kanz Portion 175 of Springvale	

Reference	Issue Raised	Raised By	Response
WHI4	<p>Mentioned that the process to date is seriously flawed in that there has not been a proper assessment of alternative routes, as required by DEAT guidelines.</p> <p>Also mentioned that any decision in favour of the proposed route will be unlawful and subject to judicial review if:</p> <p>a) Reasonable and feasible alternative routes have been proposed but not properly assessed; or</p> <p>b) No written report is prepared in regard to each such alternative route; or</p> <p>c) No detailed explanation is given why such alternative routes are rejected; or</p> <p>d) The objectors are not given a reasonable opportunity to respond to the reasons put forward for rejecting such alternative routes.</p>	<p>➤ Mr J White Jon White Attorneys</p>	<p>Supporting document 3: Transfer infrastructure investigates alternative types of pipelines (i.e. gravity and breakwater pressure pipelines) and 5 transfer routes (including technical and financial feasibility as well as environmental impacts). The section between the dam wall and the R103 is most controversial as the remainder will run parallel to the MMTS-1 pipeline within the existing servitude of aqueduct. Figure 19.2 illustrates all the alternative routes that were investigated. A number of these alternatives were looked at in conjunction with landowners and through discussions with I&APs (refer to Appendix 9 of Annexure F for minutes from the pipeline I&AP meeting).</p> <p>The properties on the Mziki Estate, although not completed at the time of the field investigations were considered in the EIR. A site visit with Mr Dickson was undertaken on 8 May 2007 where he pointed out to the consultant team where the houses would be and verbally agreed to the current alignment as it would not impact on the development. This was followed up by a letter from Cymbian confirming the details of the site visit.</p>
WHI4	<p>Mentioned that the objectors of the pipeline have made it clear from the outset that they wish alternative routes to be considered, but it appears that no serious consideration was given to any alternative routes and specifically that no written reports regarding alternative routes were ever commissioned or prepared, and that consequently any decision to proceed with the proposed route will be unlawful and judicially reviewable.</p>	<p>➤ Mr J White Jon White Attorneys</p>	
PAR4	<p>Mentioned that the issue of alternative routes wasn't dealt with and hasn't been dealt with throughout the last 16 months of request for information.</p>	<p>➤ Mr J Parkinson Mziki Homeowners Association</p>	
PAR2	<p>Mentioned that the map of the pipe line shows that there are no dwellings on the Mziki site, which shows when this last study was considered, as there was a house on the site for the last 18 months, and there were three dwellings there for the previous year. This means that the study goes back at least four years when the photograph was obtained (presumably through Google earth). He mentioned that he has amended the maps to illustrate the houses and their position. Equally the fact that the proposed route cuts across the wetland at the upper end of the dam (where the water feeds into it) and the impact will therefore be severe on the whole dam and wetland area. The alternative routes (in green and in blue) avoid cutting across the source and therefore would not affect the dam or any houses.</p>	<p>➤ Mr J Parkinson Mziki Homeowners Association</p>	
KAN10	<p>Mentioned that alternatives have been inadequately considered, which renders the EIR inadequate, and further information and re-circulation of an amended EIR with the additional information is a necessity. Adequate justification has not been provided for the discarding of various alternate routes provided to the EAPs.</p>	<p>➤ Mr W Kanz Portion 175 of Springvale</p>	
KAN10	<p>Mentioned that a detailed analysis of potential environmental</p>	<p>➤ Mr W Kanz</p>	

Reference	Issue Raised	Raised By	Response
	impacts should be given for each of the remaining preferred alternatives, as well as a consideration of technical and financial aspects as they also have potential impacts.	Portion 175 of Springvale	
KAN10	Requested that the evaluation of alternative pipeline routes in the EIR must provide the following: <ul style="list-style-type: none"> ○ A comparison of biophysical impacts associated with each alternative route ○ A comparison of social impacts associated with each alternative route ○ A comparison of economic impacts associated with each alternative route ○ A comparison of technical requirements associated with each alternative route ○ A comparison of financial requirements associated with each alternative route ○ A cost benefit analysis, both to the proponent and the public 	➤ Mr W Kanz Portion 175 of Springvale	
KAN10	He mentioned that at least 14 landowners impacted by the pipeline route proposed by the EAP have not agreed to the proposed routing. To draw conclusions on the preferred route without a clear and transparent process describing the iterative process in arriving at the best pipeline route option is unacceptable. He mentioned that Mr Bettison is objecting to the proposed pipeline crossing his property, as it will render his property value at least 20% of its current value and will render the remainder problematic in terms of future development potential. He added that the proposed pipeline is routed through one of the last remaining areas of natural grassland in the Rosetta Urban Node and it would be preferable to avoid this grassland altogether.	➤ Mr W Kanz Portion 175 of Springvale	It is not the intention of the EIA to seek landowner consent. It is merely to establish the environmentally preferred route and to notify the landowner of the intention to construct a pipeline through their property. Consultation with the landowners is undertaken to try and mitigate during this planning process any environmental concerns that the I&APs may have. It is not intended to receive consensus. The negotiation process post ROD and pre-construction is intended to establish consensus/agreement for DWAF to establish the pipeline on the landowners property. Mr Bettison agreed to the position of the pipeline during a site visit conducted on 8 May 2008, and followed-up by a letter. The grassland has been transformed and degraded by anthropogenic activities and is not seen as pristine. The grassland will be rehabilitated with indigenous species (see EMP for a list of grasses to be used and the rehabilitation process).
KAN10	The EAP suggested that the routing of the pipeline along the D682 would create too much disturbance to landowners along this road. He enquired by what measure has this been decided? He mentioned that the temporary disruption must be weighed up against the permanency of a pipeline across non-state owned land, as the D682 is not a busy road and a restriction to single lane during construction would not be considered a significant concern. The disruption would be short term and not a significant impact. The servitude within the D682 is not too narrow. In any case, the 5m no building servitudes within properties along the D682 would offer additional land for the pipeline, land which can in any case never be developed.	➤ Mr W Kanz Portion 175 of Springvale	This route was evaluated in Supporting Report 3, however this route is expected to have additional pumping costs due to the topography. In addition there is likely to be a greater social impact due to the number of affected land owners. The pipeline will also need to cross the railway line and again the R103 as the two are too far apart to jack under both at the same time, unlike the preferred alternative where the two are close together. There are also many more businesses that could be affected. Safety concerns on the R103 would also be impacted on due to the sharp bends in the vicinity of where the pipeline would need to cross underneath. The no building servitude also applies along farm boundaries and as farm boundaries are also used as fire breaks. The land has also

Reference	Issue Raised	Raised By	Response
	Placement of the water pipeline in these areas would constitute no loss to anyone as this is effectively already 'dead land'. New water pipelines of this magnitude (e.g. the Umgeni DV Harris Water Pipeline 145cm in diameter) are about to be routed through suburbs in Pietermaritzburg; this is evidence that this can be done along a district road in a rural area.		already been disturbed. This is why the preferred pipeline route runs along farm boundaries as far as possible.
KAN10	Mentioned that I Dickson enquired whether it would be possible to miss the existing and proposed properties on the property. The response showed that the pipeline could easily be constructed between the properties, missing the large tree but properly needing to relocate the pump house to a more suitable location on the property as shown on the final layout plan. He mentioned that the response was not sufficient as the pump house is linked to the borehole, not the dam. The pipeline would destroy or at least destabilize the borehole, which supplies the 9 residences on the property. This is an unacceptable impact and if the route was proposed to go through this section then a new borehole would be required that yields an equivalent amount of water. The water is also used on the adjacent property and Mr Bechard also has servitude to the water resources on the property. Any new boreholes drilled and installed with pumps would have to meet an equivalent yield as currently is the case – 36 000 liters per hour. If not, then all of the property owners would have to be compensated for this. The proposed pipeline route when going through Mr Kanz's property is also routed over a borehole on that property, which supplies the 4 new subdivisions on the Meadows Meander Estate. The pipeline would destroy or at least destabilize the borehole, which supplies the 4 residences on the property.	➤ Mr W Kanz Portion 175 of Springvale	The pipeline would miss any structures on Mr Dickson's property and is intended to follow the route described but missing the pump house and borehole. Should the borehole or pumphouse near Mr Dickson's house and the borehole on Mr Kanz's property be affected by the pipeline (to be investigated during detailed design) the land owners will be compensated as set out in Supporting Document 8. In addition, Umgeni Water is currently investigating the feasibility of constructing a water treatment plant on the northern banks of the Spring Grove Dam to supply potable water to the towns of Mooi River, Rosetta, Nottingham Road and Balgowan. The Umgeni Water investigation falls outside the scope of this EIR.
KAN10	Mentioned that it was requested that the pipe line must be routed along property boundaries rather than through properties, however, the pipelines have been routed through various properties rather than along property boundaries. If properties are to be crossed then there are a number of other routes that could be considered. Therefore one would need to consider crossing other properties along the route, not just Portion 174 and 175. If one is proposing to cross lands, then there are far more direct routes. Additional routings to those already proposed have been made, based on the following: <ul style="list-style-type: none"> ○ Ecological impacts (covered by Exigent) ○ Nuisance impacts (covered by Kay Brügge) ○ Crossing of Spruit ○ Existing damage of wetlands ○ Engineering impacts (avoidance of deep trenches, minimal 90° bends). 	➤ Mr W Kanz Portion 175 of Springvale	It is the intention of the EAP to route the pipeline along property boundaries where possible and thus a slight alteration of the pipeline has been made in this last revision to run the pipeline between portion 174 and 175. However, feasibly this was not possible on the Mziki estate for both cost and environmental reasons. Supporting document 3: Transfer infrastructure investigates alternative types of pipelines (i.e. gravity and breakwater pressure pipelines) and 5 transfer routes. In addition a number of alternatives were looked at in conjunction with discussions with I&APs (refer to Appendix 9 of Annexure F for minutes from the pipeline I&AP meeting). The section between the dam wall and the R103 is most controversial as the remainder will run parallel to the MMTS-1 pipeline within the existing servitude of aqueduct. Figure 19.2 illustrates all the alternative routes that were investigated. These alternatives have been investigated in terms of Ecological (Annexure B – including wetlands, vegetation, fauna, stream crossings), Cultural Heritage (Annexure E) and Social (Annexure D

Reference	Issue Raised	Raised By	Response
			– including safety, nuisance impacts). The engineering impacts were used in the initial selection of route options (Supporting Document 3) and principles such as 90° bends, trench depth were born in mind, when determining the preferred corridor This corridor will then be further assessed in terms of engineering requirements in the detailed design phase – post RoD.
KAN10	Requested that the length of pipeline must be considered.	➤ Mr W Kanz Portion 175 of Springvale	The length of the pipeline has been considered. The shorter, straighter and flatter the pipeline can run is the most preferred engineering and economical option. This needs to be balanced with the most preferred environmental route.
KAN10	Mentioned that deep trenches are an additional cost, but that in terms of environmental impacts such structures are easily rehabilitated with an effective EMP. There may be some implications with regards to maintenance, but then this is predicted to take place only in about 25 years time so this should not be an issue in the short to medium term. Deep trenches are therefore considered a cost implication rather than a significant environmental impact. The same applies to 90° bends, provided you retain enough flow. He requested information on how many 90° bends are feasible on this pipeline before it becomes problematic in terms of flows, and asked for the technical detail in support of this (if this is the case).	➤ Mr W Kanz Portion 175 of Springvale	Disagreed, the deeper the trench the greater the environmental impact due to the terracing of the trench which is required to lay the pipe. The detailed design will ascertain whether the preferred route is feasible given the number of bends and the distance between bends to ascertain whether the flow can be retained. It should be reiterated that it is the intention of the EIA to ascertain the most environmentally feasible corridor and the detailed engineering design (post ROD) to ascertain the most engineeringly feasibility route within the corridor.
KAN10	Enquired: <ol style="list-style-type: none"> 1. Why the pipeline has been routed diagonally through properties 2. What the time frame is for a length of 1km of pipeline to be lain 3. Why the pipeline has not been laid along the district road and within the reserve of the R103 4. What activities will be permitted above the pipeline 5. What size the servitude will be for (i) construction and (ii) operation 6. How often are markers are placed aboveground along the pipeline route 7. How would the water service provider gain access to the pipeline 8. Whether owners will be compensated for the routing of the pipeline servitude, and if so, how. 	➤ Mr W Kanz Portion 175 of Springvale	<ol style="list-style-type: none"> 1. The pipeline was only routed through properties to avoid longer distances on the pipeline, thereby disturbing more of the environment, topographical consideration and to avoid sensitive environmental features, such as farm dams. 2. It is estimated, depending on the type of pipe, the labour capacity of the contractor and the difficulty encountered during excavation that 30 – 60 m of pipeline can be laid per day. 3. The existing servitude of aqueduct will be used as opposed to the R103 road reserve. The R103 closer to the dam has not been used due to the topography as it is more costly to pump water continuously over hills. 4. No structures may be constructed or large trees planted. Depending on the depth of the pipeline, gardening and limited agricultural uses are permitted. 5. The permanent servitude will be 25 m while for construction purposes an additional temporary servitude of 10 m would be required along the existing MMTS-1 pipeline section. In general the permanent servitude between the dam and the MMTS-1 pipeline will be 15 m. However, this may vary in specific areas. The servitude width must take into account width required to replace the pipeline during operation,

Reference	Issue Raised	Raised By	Response
			<p>should it be required.</p> <p>6. Breather structures are required at each change in elevation of the pipe and at bends in the pipeline. The exact position will be determined during detailed design.</p> <p>7. The EMP provides details in terms of access to the pipeline for maintenance purposes. The water service provider will not have access to the pipeline. The pipeline is to transfer water from the Mooi River catchment (the Spring Grove Dam) to the Mgeni River catchment and release it into the Mpošana River. The pipeline is not to provide for use by the water service provider. Separate access to water from the dam will be used for this purpose if deemed feasible through a separate process.</p> <p>8. Land owners will be compensated for the pipeline servitude. This will be carried out during the negotiation process to commence post ROD.</p>
Issues Related to Proposed Quarry Site			
BER1	Requested that there will be consultation long before the contractor rush in, as the contractor would have to make the final decision to use the quarry or bring in from another source. He enquired when is the earliest that this could happen.	➤ Mr J Berning Sub 85 of the farm Springvale No 2170	It is not possible to give an indication of timeframes for construction commencement date as it is dependent on issuing of a RoD by DEAT, a potential appeal process, detailed design, negotiations and a number of other investigations that are required before construction can commence.
MAC2	Enquired where any of the quarry / borrow pit sites will be located.	➤ Mr B MacKenzie Department of Transport - Deputy Manager of roads near Nottingham Road	The Farm Spring Vale 2170 has been identified for a possible quarry site. Borrow material will be sourced from within the dam basin. Material that can not be sourced locally will be bought from commercial sources close to the site. Refer to Sections 20 and 22 of the EIR as well as Annexure H for the EMP (mining permit)
Issues Related to Tourism Activities			
STE6	Mentioned that the current proposed level of the proposed dam, will inundate the Inchbrakie falls and bushmans paintings, and necessitates the building of a costly fish barrier. The Inchbrakie falls is a local tourist attraction which will be lost/spoilt forever.	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	Inchbrakie falls has been rated as high local and low regional, provincial, national and international heritage significance due to its aesthetic value. The falls are on private property and are not accessible to the public limiting their tourism value.

Reference	Issue Raised	Raised By	Response
STE6	Mentioned that no financial compensation values have yet been resolved (this should be completed before final approval of the EIR, including compensation for the loss of the Inchbrakie Falls to future tourism).	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	Financial compensation is not a requirement of the EIR and therefore does not have to be completed prior to the decision regarding the EIR. The EIR looks at the environmental feasibility of the dam. The negotiation process post ROD will need to resolve financial compensation matters. Inchbrakie falls has been rated as high local and low regional, provincial, national and international heritage significance due to its aesthetic value. The falls are on private property and are not accessible to the public limiting their tourism value. Furthermore, dams are considered tourist attractions and could increase tourist numbers to the area.
STE6	Enquired what the usage of the dam will be (recreational/ launching rights etc)	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	A Water Resource Management Plan will be drafted post-ROD and will look at additional uses of the dam. The primary use of the dam is to augment the water supplies of the Mgeni System water users..
ZEN4	Mentioned that the tourism trade will be seriously influenced by the construction.	➤ Mr J Zelenka Chairman Rosetta Ratepayers and Residents Association	Most of the tourist facilities are not located in the vicinity of the construction activities and should not impact on tourism in the area. Construction is a short term activity and tourist attraction to the dam post construction should increase tourist trade over the long term.
Issues Related to Social and Labour Aspects			
HUG8	Mentioned that Appendix D Social Impact Assessment: No mention made of social impacts of increased cost of the roads to Vaalekop South Properties (among land owners and workers there are currently are 7 families with children at school in Nottingham Road). If it had, then the final recommendations as to priorities for the provision of alternative access to the properties may have been in reverse order – see pages 38 and 39. Part 2 Section 1 “New Roads Infrastructure” by contrast provides a highly useful analysis of the issue.	➤ Mr G Huggins Portion 49 of Vaalekop	Comment Noted. The traffic and pavement study investigated road distance and cost and the SIA has been updated to integrate these considerations with the other social issues identified.
GRE1	Mentioned that he lives on the D146 in Rosetta, the road which is going to be used for the building of the dam, and we run a business called "Horizons Gourmet Picnics" plus 2, 2 room self catering units. He enquired which recourse they have if the building of the dam begins to impinge on their rights to make a living, considering there will be a 100 truck trips a day travelling past their property.	➤ Mr and Mrs Grealy Horizons Gourmet Picnics	If it can be proven that the right to make a living will be impeded as a result of construction traffic this should be raised during pre-construction negotiations. Construction is, however, a short term activity and the potential increase in tourist trade in the long term once the dam is operational could more than compensate for any potential loss in earnings during construction. Also refer to the Annexure G: EMP for measures to be taken to minimize impacts on existing businesses. Specifically, road maintenance and noise mitigation.
ZEN4	Enquired what will be done about the business on the D146.	➤ Mr J Zelenka Chairman Rosetta Ratepayers and Residents Association	One can actually compensate a person provided that he submits evidence of past impacts to determine the impact during construction. This would however be a post construction claim to DWAF

Reference	Issue Raised	Raised By	Response
KAN10	Requested that the impacts (social and economic) on the gated estates needed to be quantified and evaluated.	➤ Mr W Kanz Portion 175 of Springvale	It is not certain what the I&APs concern is relating specifically to gated estates. Impacts on all properties affected by the development have been evaluated. Specific issues raised concerning security and consequent property values have been responded to already in this IRR. The SIA indicated that there would be some impact during construction but in the long term operational phase there would be limited impacts.
KAN10	Requested a method statement on how labour will be sourced from the local population, including means of identification and procurement procedures that ensure economic benefits accrue to the local population rather than outside service providers and contractors (this should form part of the EMP).	➤ Mr W Kanz Portion 175 of Springvale	Refer to Annexure G: EMP. Section 6 and in the Annexure D: SIA
KAN10	Requested a procedure for the appointment of an Environmental Control Officer that would audit the implementation of the project.	➤ Mr W Kanz Portion 175 of Springvale	Refer to Annexure G: EMP, Section 3 for the roles and responsibility of the ECO. The ECO will be appointed according to any specifications laid down in the ROD or by the employer. The ECO will be an independent professional.
Issues Related to Expropriation, Compensation and Land Ownership			
KAR4	Enquired why Sub 0 of Vaalekop 3297 is not referred to in the Social Impact Assessment in 4.1.3 Relocation of Families and Individuals.	➤ Karg, B and K Olson.	A relocation action plan will be drafted post ROD and will include all properties affected by the FSL of the Spring Grove Dam to be accurately calculated as part of the detailed design also taking place post ROD. Refer to Section 4.3.2, Properties partially/minimally affected by inundation - remainder of Vaalekop 3297
Issues Related to Access to the Proposed Dam			
LUN1	Enquired whether their rights to access the river for fishing and recreation be effected once the fish barrier weir is constructed.	➤ Ds A Lund Sub 46 of the farm Vaalekop No 3297	It has been recommended by the EIR that the basin of the fish barrier weir will not be expropriated but that servitidue of storage will be registered for it in order to allow current land owners to utilize the river as before
Issues Related to Irrigation and Water Rights			
STE6	Mentioned that the pumping rights of farmers/land owners have not been resolved	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	This will be undertaken post ROD during the negotiation process. Existing pumping rights will not be negatively affected. Again, this is a matter that needs to be taken up with the implementing agent once the ROD has been issued and pre-construction negotiations start.
LUN1	Mentioned that their water supply is taken from a ram pump on the rivers right bank at the proposed site of the fish barrier. Construction of the coffer dam to divert the river left will cut off our water supply for domestic use. Also once the weir is completed will our intake pipe for the ram pipe be able to make use of the increased height to which the river level will be raised?	➤ Ds A Lund Sub 46 of the farm Vaalekop No 3297	As the weir is downstream of Ds Lund's property, river diversion will not impact on the current abstraction works. The highest water level after construction of the weir will increase the abstraction ability of the pump.

Reference	Issue Raised	Raised By	Response
Issues Related to Financial Matters			
STE6	Mentioned that the conflict of interest that has been created by land owners "cashing in" is tainting the process, with some land owners supporting the process only in the interests of financial self gain	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	Comment noted
STE6	Mentioned that no financial compensation values have yet been resolved (this should be completed before final approval of the EIR, including compensation for the loss of the Inchbraekie Falls to future tourism).	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	Financial compensation is not a requirement of the EIR and therefore does not have to be completed prior to the decision regarding the EIR. The EIR looks at the environmental feasibility of the dam. The negotiation process post ROD will need to resolve financial compensation matters. Inchbraekie falls has been rated as high local and low regional, provincial, national and international heritage significance due to its aesthetic value. The falls are on private property and are not accessible to the public limiting their tourism value. Furthermore, dams are considered tourist attractions and could increase tourist numbers to the area.
PAR2	Mentioned that rental for the servitude (pipeline) must be paid per month to the owners (I have a share in a farm in Mpumalanga with a Vodacom mast on it -the footprint of this structure is approximately 30 square meters, and we are paid R4000 per month as compensation. The concrete structures alone (combined) would make up a larger footprint than this, but compensation should be worked out based on this kind of example. (The servitude – approximately 7 – 10 meters wide and running several hundred of meters across our land would imply a hefty monthly rental (or as I noted in the minutes from the meeting on the 4th June – compensation in terms of rates reduction to the same value)	➤ Mr J Parkinson Mziki Homeowners Association	The servitude will not be rented. Compensation will be given to land owners affected, details of which will be discussed with land owners post ROD.
SIN1	Mentioned that the loss of value in the event of marketing of any of the properties during the construction phase and loss of future value of properties. He mentioned that it is considered that the sales values of the Mziki units could be adversely effected by a figure in the region of 20%.	➤ Mr I Sinclair Pam Golding Properties	Refer to Annexure D: SIA Section 4.4 and Appendix B Baseline Analysis Section 12. This assessment is based on rating of impacts from both primary (interview) and secondary data (literature sources). The finding, in summary is that at the very least, the dam is anticipated not to result in an increase in property prices (those consulted, including estate agents, did not mention a decrease – whether during construction or operation). Baseline realities independent of the proposed SGD are described as being such that: "Property prices in the entire Midlands area have increased over the past couple of years due to the appealing characteristics of the area as mentioned above. The area surrounding Rosetta, which would be the hub of the dam, is still one of the cheaper areas and property prices in that area have not escalated due to talk of the possible development. One of the reasons for this was indicated that the proposed project has been in the pipeline for so long and that it would not affect the property market until finally

Reference	Issue Raised	Raised By	Response
			approved" (section 12, baseline analysis). If the concern is that the construction process (e.g. due to the disruption; aesthetic impacts it causes rather than the principle of the proposed dam itself), will affect marketing of the Mziki units, then any construction activity (which is a common feature in the area; not unique to the proposed dam), should have similarly adverse impacts on marketing activity.
KAN10	Requested that the reduction of property values on account of servitudes must be considered.	➤ Mr W Kanz Portion 175 of Springvale	This will be considered during the compensation / negotiation process post ROD.
KAN10	Enquired whether there will be remuneration to businesses that will not realistically be able to operate as a consequence of the construction of this dam.	➤ Mr W Kanz Portion 175 of Springvale	<p>If it can be proven that the business remuneration will be impeded as a result of construction this should be raised during pre-construction negotiations. Construction is, however, a short term activity and the potential increase in business trade and remuneration in the long term once the dam is operational could more than compensate for any potential loss in earnings during construction.</p> <p>One can actually compensate a person provided that he submits evidence of past impacts to determine the impact during construction. This would however be a post construction claim to DWAF</p>
Issues Related to Alternatives			
STE6	Mentioned no consideration of desalination of sea water has been considered as a viable alternative to Durban's water shortage in the proposed building of this dam in the first instance, or as part of the project.	➤ Mr C Steenhuisen Sub 16 of the farm Vaalekop No 3297	Refer to Section 11.2.5 of the EIR which details desalination as an alternative to the Spring Grove Dam and MMTS-2. This is considered an extremely expensive process that will affect the costs of water provision to households and cannot be considered a viable alternative. Water reuse was also considered in this Section 11.2.4 of the EIR.
BAR1	Mentioned that the EIA failed to investigate alternative sources of water. (Please note that the bare quoting of information out of international journals or publications is not the required investigation.) There is a failure for example to deal adequately with alternatives such as the re-use of water or alternative water sources such as the desalination of seawater. It is not submitted that the desalination of seawater should replace the water from the MMRS-2. The view is that it must be investigated as a source of augmentation of water supply.	➤ Mr CE Barnard Duard Barnard & Associates	The water situation in the supply area has subsequently become so critical that all kinds of alternative water resources have to be developed to overcome the situation. This will, however, not exclude the need for Spring Grove Dam as it forms a critical part of meeting the water needs of the area and is also the one that can be developed first as a result of its state of planning.
SMI3	Mentioned that the alternatives have not properly been considered regarding the alternate route or any other alternate pipeline routes. They advised that the final EIA must properly consider the alternate options or the necessary applications to the High Court to compel you to do so will be made. He mentioned that in terms of Regulation 32 of NEMA all reasonable options must be considered before making submissions to the Department of Environmental Affairs & Tourism.	➤ Mr GMS Smith Venn Nemeth & Hart	Supporting document 3: Transfer infrastructure investigates alternative types of pipelines (i.e. gravity and breakwater pressure pipelines) and 5 transfer routes. In addition a number of alternatives were looked in conjunction with discussions with I&APs (refer to Appendix 9 of Annexure F for minutes from the pipeline I&AP meeting). The section between the dam wall and the R103 is most controversial as the remainder will run parallel to the MMTS-1 pipeline within the existing servitude of aqueduct. Figure 19.2 illustrates all the alternative routes that were investigated. These alternatives have been investigated in terms of Ecological

Reference	Issue Raised	Raised By	Response
			(Annexure B – including wetlands, vegetation, fauna, stream crossings), Cultural Heritage (Annexure E) and Social (Annexure D – including safety, nuisance impacts). The engineering impacts were used in the initial selection of route options (Supporting Document 3) and principles such as 90° bends, trench depth were kept in mind when determining the preferred corridor This corridor will then be further assessed in terms of engineering requirements in the detailed design phase – post RoD.
Issues Related to the Draft Environmental Impact Report			
ARC2	<p>Mentioned that the Environmental Impact Assessment Matrix makes reference to a “post de-commissioning criteria” on the duration column of the matrix. It is firstly recommended that the section 21.1.3 be updated to reflect these criteria. It is also suggested that many of the impact variables that are identified to occur in the “post de-commissioning period” will also occur in construction and operation. The table 24.1 should therefore be improved to reflect this.</p> <p>Also mentioned that the Environmental Impact Matrix is also silent (the column is left blank) on the significance after mitigation (section 21, point 9.3.2) of the impacts on the receiving streams. It is suggested that an explanatory note should be placed below the matrix as to why it is not addressed. It is understood that the ROD for the Receiving Stream has already been granted for a 4.5 cumec transfer. However, it may be interpreted by the affected parties that there are additional structures being developed which are associated with this phase of MMTS-2 which were not previously identified under MMTS-1, and which may contribute towards an incremental impact on the receiving stream. Some consideration should have been given to this issue in this EIR.</p> <p>Also mentioned that in section 23.5 (recommendation regarding ecological impacts) it is stated after considerable investigations, there is a shortage of 154ha of wetlands to be rehabilitated and that DWAF at the time indicated a limitation in negotiations being proposed by land-owners for acquisition of wetland that would meet this shortfall, the main concern was the cost of acquiring additional land for this project on the projected water tariff. In the management of the MMTS-1 to date, Umgeni Water has responded to frequent complaints of flooding on Mr. Bischoff’s property, which is situated immediately upstream of Midmar Dam, during periods of transfer. This property is a degraded (drained) wetland that if expropriated and rehabilitated, will assist in meeting the requirements for off-site mitigation of the proposed MMTS-2 project. More important however, is that it may also assist in ameliorating the sediment</p>	<p>➤ Mrs L Archer Umgeni Water - Environmental Planner</p>	<p>Refer to Section 21.1.3 for an updated time scale criteria.</p> <p>9.3.2 does not list significance after mitigation as no mitigation is proposed. This is due to the fact that raised water levels will have a positive impact on wetlands and birds. However, this explanation has been included as a footnote below the table.</p> <p>Bridging Study 3 covers the identification of wetlands to be offset and this will depend on the willingness of the land owner.</p> <p>If Mr Bischoff is willing to allow DWAF to rehabilitate the wetland and thereby reduce the flooding of his property as a result of the transfer water then this could be considered during the offset wetland rehabilitation process.</p> <p>Issues relating to the previous pipeline fall outside of the scope of this EIA. Monitoring of the receiving stream has been included as part of the EMP to ensure that impacts such as scouring of the river bed are identified and mitigation measures imposed before irreparable damage is done.</p>

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	and other pollution of Midmar Dam that can be attributed to the impact of the existing MMTS-1 as well as impacts of increased flows associated with MMTS-2. It has been observed that the MMTS-1 Impact on the 'receiving streams' has resulted in considerable scouring of the Mpofana river basin.		
KAN10	<p>Mentioned that the ecological, economic, heritage and social assessment did not consider relative sensitivity of the alternative pipeline routes; the ecological study did not consider all alternatives noted in the EIR, and did not consider all of the alternatives presented by the IAPs. The IAPs insist that a comparative assessment of the alternative pipelines is carried out, as per accepted methodology and process.</p> <p>Mentioned that the ecologist missed some wetlands and the heritage consultant did not evaluate the alternate routes. The IAPs insist that the specialists complete their work for inclusion in an amended draft EIR for review by IAPs, which includes all the information required as the regulations and guidelines.</p>	<p>➤ Mr W Kanz Portion 175 of Springvale</p>	<p>Supporting document 3: Transfer infrastructure investigates alternative types of pipelines (i.e. gravity and breakwater pressure pipelines) and 5 transfer routes. In addition a number of alternatives were looked in conjunction with discussions with I&APs (refer to Appendix 9 of Annexure F for minutes from the pipeline I&AP meeting). The section between the dam wall and the R103 is most controversial as the remainder will run parallel to the MMTS-1 pipeline within the existing servitude of aqueduct. Figure 19.2 illustrates all the alternative routes that were investigated. These alternatives have been investigated in terms of Ecological (Annexure B – including wetlands, vegetation, fauna, stream crossings), Cultural Heritage (Annexure E) and Social (Annexure D – including safety, nuisance impacts). The engineering impacts were used in the initial selection of route options (Supporting Document 3) and principles such as 90° bends, trench depth were kept in mind when determining the preferred corridor This corridor will then be further assessed in terms of engineering requirements in the detailed design phase – post RoD.</p> <p>No wetlands were missed and the ecologist and heritage consultant evaluated the entire pipeline area including all alternatives.</p>
KAN10	Mentioned that no impacts related to developments were considered, including management of impacts arising as a result of intrusion into a secure estate. The impact of pipeline noise in the operational phase has also not been considered, and aesthetic mitigation measures for infrastructure required for the pipeline route have not been discussed with relevance to specific receptors. The current EIR process therefore has not achieved its required outcomes.	<p>➤ Mr W Kanz Portion 175 of Springvale</p>	<p>Refer to Annexure G: EMP, Section 6 Safety and Security, Noise impacts and visual impacts. These were also included in the SIA report (Annexure D). No complaints have been lodged regarding noise or vibration from the existing MMTS-1 pipeline in operation. The pipe will be laid underground and the compaction of the soil above will mitigate any noise and vibration caused from the water running through the pipe. Air vents will be placed at the apex of pipeline to let air escape the pipeline, which will further reduce the noise and rumbling effect.</p>
Issues Related to the Environmental Management Plan			
ARC2	<p>Recommended that:</p> <ul style="list-style-type: none"> ○ Pg 13 of the EMP makes recommendations that a Water Management Plan is drawn up by the contractor and indicates that DWAF will stipulate the acceptable level of sedimentation. It is recommended that a monitoring program must be drawn up in consideration of the various uses of downstream water during the construction period include: <ul style="list-style-type: none"> • The possible impacts on water transfer from Mearns dam to Mgeni catchment • The acceptable water quality levels for water 	<p>➤ Mr L Archer Umgeni Water - Environmental Planner</p>	<p>Refer to Annexure G: EMP and receiving stream EMP (carried out in 2004 but remains applicable).</p>

Reference	Issue Raised	Raised By	Response
	<p>treatment for potable use</p> <ul style="list-style-type: none"> • The acceptable water quality levels for irrigation. ○ The grass seed specification for rehabilitation described in Appendix 5 should be updated with information from EKZN wildlife and / or Cedara to reflect local conditions. 		The grass seed specifications (Appendix 5 of Annexure G) have been updated
DAV3	Recommended the wetland rehabilitation project as being suitable for recommendation and inclusion in the final IEM Report.	➤ Dr Davies A H Rycele Lodge, Rosetta	The wetland rehabilitation project can only start post ROD.
FEL3	<p>Mentioned that the following amendments or additions should be to the draft Environmental Management plan:</p> <ul style="list-style-type: none"> ○ Empty containers for herbicides\hazardous substances should be punctured to avoid reuse; ○ There is no mention of weather conditions for spraying of herbicides, or of the use of Personal Protective Equipment for spraying; ○ There is no mention of the procedures and consultation of Amafa a KwaZulu Natal should any graves and heritage objects be discovered during earthmoving activities; ○ Heavy vehicles should be installed with silencers to minimize noise; ○ Page 39 and page 40 are missing; ○ A communication programme and process channels with land owners or public members is a necessary; ○ Specific operating hours should be included; and ○ An employment plan should be included to ensure maximum direct benefit to local and affected communities in employment created. 	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	Refer to Annexure G: EMP where the suggested amendments have been included in the appropriate section. Pages 39 and 40 do exist and may have been omitted accidentally from the reviewed copy, however these pages have been included in this 2 nd review document.
Issues Related to Procedural Requirements			
BAR1	<p>Noted that as stipulated in the explanatory note to clause 7 of the NWA it is stated under Part 2: titled "Catchment management strategies", section 3(1)(j) of the Development Facilitation Act, 67 of 1995, (the DFA), section 2(3) of the National Environmental Management Act, 107 of 1998 (NEMA), section 2(3) of NEMA, section 2(4)(b) of NEMA, section 1(1)(iii) of NEMA and section 23(2)(b) of a NEMA. The EIA does not meet the express requirements of the legislation quoted above.</p> <p>He mentioned that the CBA Study should have been done with regard to both catchments in order to comply with the legal requirements. In considering the correct approach to these studies, it should be realized that water is the basis for all life and that different quantities of water is needed for different</p>	➤ Mr CE Barnard Duard Barnard & Associates	<p>The MMTS-2 planning process started prior to the NWA promulgation, which makes provision for CMAs and thus cannot be applied retrospectively. The impacts and benefits of the MMTS-2 are dealt with in this EIR and in the Receiving streams EIA</p> <p>The following response is given to the items that must be answered:</p> <p>What is the size, distribution of communities? This is set-out in some detail in Appendix B of Annexure D: SIA.</p> <p>What is their economic profile? This is set-out in some detail in Appendix B of Annexure D: SIA.</p>

Reference	Issue Raised	Raised By	Response
	<p>purposes.</p> <p>The following must be answered:</p> <ul style="list-style-type: none"> ○ What is the size, distribution of communities? ○ What is their economic profile? ○ What are their future developmental prospects ○ What is the social capital of these communities in the sense that they can combine future growth and development without endangering their close knit family relations and ability to give and receive social support? (It is obviously fatally flawed to forego the development of employment and careers opportunities in the Mooi River in favor of jobs in the neighboring area where the people for whom the jobs are created must exchange their secure and socially strong communities in Mooi River, for the debilitating existence of a squatter in the Mgeni catchment. ○ To what extent are there possible opportunities in the creation, not only of jobs, but also of the structuring of careers, improvement of education, upgrading of their quality of life. This refers to opportunities in a manufacturing industry, especially industries that logically belong in each area, such as a dairy industry in the Mooi River basin; a tourism industry; a services future and others. (It is obvious that it is invidious to require of a person to uproot himself from his known and trusted community, to destroy all the opportunities to give and receive emotional and other support by demanding of him to become a squatter elsewhere in order to eke out a living). <p>Mentioned that no comparative study was done to establish the different parameters within which a decision must be made; no value was given to the water necessary or available to underpin each form of land use.</p>		<p>What are their future developmental prospects.</p> <p>If by “future development prospects”, Mr Barnard means local socio-economic developments that could create job opportunities, then refer to Annexure D: SIA, Appendix B Section 10 and 11 and the relevant sections in the SIA (e.g. 4.4).</p> <p>What is the social capital of these communities ... Mgeni catchment.</p> <p>Perhaps Mr Barnard is referring to p.75 of the SIA (Annexure B): “In fact, the employment that will be created in the Mgeni supply area will be greater with a factor of 10, than the employment that will be lost in the donor catchment” (p.iii). The comment seems to rest on the assumption that significant employment to be created in the Mgeni supply area will create such ‘pull’ so as to exert adverse impacts on social capital in Mooi River if people were to leave to seek employment due to jobs being created at Mgeni as a result of water supply of the SGD. Based on the following facts/supportive info. raised in the SIA, the issue of negative impacts on social capital was not seen to be applicable, i.e. there was information pointing to expected ongoing good community cohesion in spite of, or even as a direct result of the proposed SGD:</p> <ul style="list-style-type: none"> ○ the proposed project will generate some 700 job opportunities for 3 years (acknowledged to be positive and helpful but non-sustainable); ○ the “...construction of the dam will result in the unlocking of more development which is hamstrung due to the lack of water provision to peri-urban and rural areas” (this should offer opportunity and create tenure); and ○ “...the balance sheet of dairy farming is increasingly challenging and, to compound the issue, those farmers who wish to expand their operation are faced with paying inflated residential prices for what is designated as agricultural land. For many, selling-up is a real option...”. (Note: this quote served to highlight baseline realities unrelated to the proposed SGD, showing dynamics in the dairy farming industry & property market, thereby placing expected impacts directly attributable to the SGD into the proper context, i.e. that job losses (and adverse impacts (exodus) on social capital as reflected in the query, would result or may already have resulted in any event)). (Also refer to the quote on page 79 of the SIA (Annexure D) about agriculture). <p>“Retrenchment of farm employees will result: (1) if farms/properties become unviable as a result of inundation; or (2) if farmers scale down operations due to inundation; or (3) if property owners decide to rezone, resulting in a potential mismatch between the current</p>

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			<p>skills of employees and what is required in terms of the new zoning (e.g. tourism venture). While the retrenchment of farm workers is possible, it is difficult to prospectively determine the nature and extent of retrenchments in view of the above factors”.</p> <p>The above has informed both positive and negative ratings as far as socio-economic impacts (see Section 4.4 of the SIA (Annexure D)). More specifically, negative impacts as far as the possible retrenchment of farm workers is concerned were rated very conservatively and cautiously as being “Highly Significant”, based on the IAIA principles under 3.2.1 of the SIA, which, inter alia, make reference to social capital (f), but other important matters too. Elsewhere in the report, this issue was also addressed (by way of extensive mitigation measures), should the scenario of retrenchment materialise and land-use changes commensurate with the dam not be able to offer opportunities to current farm workers. In so doing the SIA author attempted to ensure that those with limited resources will be taken care of properly by the project proponent.</p> <p>In summary : the issue of negative impacts on social capital are not seen to be directly attributable to the proposed SGD and were therefore not described/rated. In fact, the SGD may positively sustain cohesion / stability in communities by creating opportunities locally (Mooi); and also compensate for problems in the farming sector: “Farmers have moved out of dairy farming to try and find more viable income streams because of historically low prices coupled with the high maize price - an important input cost”; and “ Dairy farmers in the KwaZulu-Natal Midlands have formed a company to negotiate better prices from buyers and say early indications are that the strategy is paying off. (Business Report, July 2007). http://www.busrep.co.za/index.php?from=rss_&fArticleId=3948350</p> <p>To what extent are there possible opportunities in the creation, not only of jobs, but also of the structuring of careers, improvement of education, upgrading of their quality of life.... in order to eke out a living).</p> <p>Again, the above observation is apparently driven by the assumption that the proposed Dam: (1) will not create the sustainable facilitative environment (through socio-economic opportunities) for affected individuals and families to attain / sustain the imperatives mentioned (education; career-path; quality of life, etc.); and/or (2) that the conditions described (including migrant labour due to high currently high unemployment levels) may not materialise independent of the proposed dam. Furthermore, if it so happens as calculated by Conningarth Economists that the jobs</p>

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			created at Mgeni will be 'greater with a factor of 10' (SIA, p.75), then it is not necessarily foreseen as a bleak scenario described by Mr Barnard as 'eeking out a living and squatting') befalling those seeking employment there.
KAN10	Mentioned that should the EIR be submitted in its current form, it is emphatically stated that every legal option available will be pursued to appeal any decision by the competent authority and that all land legal rights will be exercised to prevent the construction of the pipeline as proposed.	➤ Mr W Kanz Portion 175 of Springvale	It is Mr Kanz's right to use the mechanism at his disposal. We are of the opinion that the EIA and its processes are compliant to the relevant legislation Refer to the changes made to the report specifically the pipeline route and the EMP.
KAN10	Mentioned that the draft EIR has not complied with the regulations regarding Scoping and Environmental Impact Assessment, both in terms of the Environmental Conservation Act and National Environmental Management Act. This is the case both in terms of the requirement of a Scoping Process within an environmental impact assessment, and in terms of assessment of alternative pipeline routes. The draft EIR has also not complied with all DEAT and DAEA guidelines, as well as international best practice in terms of the Scoping Process and the requirements for the assessment of alternatives, specifically the assessment of alternative pipeline routes	➤ Mr W Kanz Portion 175 of Springvale	The report need not comply with the NEMA nor any associated guidelines. The report has been drafted by the EAP in terms of the ECA EIA guidelines and it is up to DEAT to determine whether the report complies thereto. Exemption from Scoping and a Plan of Study for EIA was accepted by DEAT.
FEL3	Mentioned that exemption from a scoping process was granted by the Department of Environmental Affairs and Tourism based on the past studies that had been undertaken for the proposed project. While a large number of studies were undertaken prior the initiation of the environmental assessment process in terms of GN R1183 of 5 September 1987, many activities that are now included in the current EIA study were not included in these past studies. He mentioned that it is therefore critical that for those aspects or activities (i.e. the road re alignments, pipeline route, quarry site etc.) that detailed attention is process.	➤ Mr I Felton KZN DAEA - Assistant Manager: Environmental Planning uMgungundlovu District Environmental Services	The impacts for the additional activities have been evaluated in this EIR refer specifically to Sections 17 to 20, environmental impacts to the dam (including any road realignments required as a result of inundation), the pipeline route, the quarry (also included in Section 22 and Annexure H – the mining permit) and the fish barrier.