



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

MZIMVUBU WATER PROJECT: ENVIRONMENTAL IMPACT ASSESSMENT

ENVIRONMENTAL IMPACT REPORT

APPENDIX B6:

ISSUES AND RESPONSES REPORT

DRAFT VERSION 2

October 2014

DEA REF No. 14/12/16/3/3/2/677 (Dam construction application)

14/12/16/3/3/2/678 (Electricity generation application)

14/12/16/3/3/1/1169 (Roads application)

Compiled by:



Subsidiary of **NAKO**
Group

Acronyms and Abbreviations

AFM	Authorities Forum Meeting
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DEDEAT	Department of Economic Development, Environment and Tourism
DM	District Municipality
DPE	Department of Public Enterprises
DRDLR	Department of Rural Development and Land Reform
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
IPP	Independent Power Producers
I&APs	Interested and Affected Parties
JSS	Junior Secondary School
MWP	Mzimvubu Water Project
NEMA	National Environmental Management Act
NGO	Non-Government Organisation
PM	Public Meeting
PSC	Project Steering Committee
RAP	Relocation Action Plan
SEA	Strategic Environmental Assessment
TOPS	Threatened or Protected Species
WWF	World Wildlife Fund

MZIMVUBU WATER PROJECT: ISSUES AND RESPONSES REPORT

1. INTRODUCTION

Background

The Mzimvubu Water Project is an integrated multi-purpose (domestic water supply, agriculture, power generation, transport, tourism, conservation and industry) project and provides a socio-economic development opportunity for the region. The purpose of this Environmental Impact Assessment (EIA) is to assess the components of the project that are listed activities by the National Environmental Management Act (NEMA) for which the Department of Water and Sanitation (DWS) has the mandate and intention to implement. The EIA process will provide the information that the environmental authorities require to decide whether the project should be authorised or not, and if so then under what conditions.

ILISO Consulting (Pty) Ltd has been appointed as the Environmental Assessment Practitioner to facilitate the application for the Environmental Authorisation and to undertake a public participation process.

Purpose of this report

This report provides a formal and integrated record of all the issues raised by Interested and Affected Parties (I&APs) at the meetings or by letters, e-mails or telephone and the responses provided by the Department of Water and Sanitation and technical team during the public participation process up to 12 September 2014.

Structure of report

Comments received have been divided into categories for ease of access (**Chapter 3**) as follows:

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Please note that the spelling of the town Laleni, as published in the previous version of the Issues and Responses Report has changed to Lalini. Additionally, the Department of Water Affairs (DWA) has subsequently been changed to the Department of Water and Sanitation (DWS). These have both been amended in this document.

Authorities Forum Meetings (AFM) and Project Steering Committee (PSC) Meetings

The following AF Meetings and PSC Meetings have taken place (date in bracket indicates the date that minutes were distributed):

No.	Date	Place	Type of Meeting
1.	16 April 2014	East London Golf Club (29 May 2014)	PSC
2.	28 May 2014	East London Golf Club (9 June 2014)	AFM
3.	16 June 2014	East London Golf Club (3 July 2014)	PSC
4.	28 August 2014	East London Golf Club (2 October 2014)	PSC

A copy of the minutes are attached in **Annexure i.**

Stakeholder Meetings:

The following public meetings have taken place (date in bracket indicates the date that minutes were distributed):

No.	Date	Place
1.	14 May 2014	Siqhungqwini Junior Secondary School (3 June 2014)
2.	15 May 2014	Tsolo Town Hall (3 June 2014)
3.	16 May 2014	Lalini Junior Secondary School (3 June 2014)

A copy of the minutes are attached in **Annexure i.**

Documents made available to stakeholders

The following documents have been distributed to registered I&APs and placed on the DWS website during the public participation process:

No	Date	Report
1.	24 April 2014	Background Information Document (English and isiXhosa)
2.	9 May 2014	Draft Scoping Report
3.	9 May 2014	Summary of the Draft Scoping Report (English and isiXhosa)
4.	13 June 2014	Final Scoping Report
5.	15 July 2014	Approval from DEA of Scoping Report

Written submissions

A copy of all written submissions are attached in **Annexure ii.**

2. SUMMARY OF THE KEY ISSUES

The key issues that have been raised are summarised below. The detailed comments received are recorded in **Chapter 3**.

1. The dams will store water that would previously have flowed down the Tsitsa River into the Mzimvubu River, and ultimately through the estuary to the sea. Some water will be abstracted from the dams for primarily, domestic and agricultural use. Other water will be released from the dams for power generation in a way that alters the natural flow regime. At some times the rivers will therefore have less water than natural and at other times they will have more. Changes to the flow regimes in rivers, especially where potentially sensitive areas, such as the Tsitsa Falls and associated pristine gorge downstream of the proposed Lalini Dam as well as the Mzimvubu estuary, could impact on the aquatic and riparian ecosystems and associated ecosystem services provided by the rivers. The impact of the proposed altered flow regimes in the rivers on the **aquatic and riparian ecosystems** therefore need to be assessed.
2. The Mzimvubu Project is located in a part of the country that currently experience severe soil erosion with associated high **sediment** levels in the rivers. Concern has been raised that this condition will cause the dams to silt up, reducing their yield and affect the functioning of the works (e.g. abstraction and water treatment). Impacts on the river channel and water quality immediately downstream of the dams where water carrying less sediment than when entering the dam is released are also envisaged.
3. When a dam is constructed the land that will be inundated by water will be permanently altered and the current functionality will be lost (and replaced with a lake). The proposed dams (both Ntabelanga and Lalini Dams together) are expected to inundate approximately 10.34 km² of wetlands as well as grassland and savannah habitats, man-made structures, roads and powerlines. The plants and animals that currently depend on the river, wetland, grassland or savannah habitats will either have to move/be moved to use other resources or will die. The significance of this **ecological impact** needs to be assessed.
4. Some people are currently living and providing for their existence from the resources in the areas that will be inundated by water or replaced by infrastructure. These families will have to be **relocated** to new homes and **compensated** for their loss of livelihoods. This is usually a socially disruptive and personally traumatic experience that needs careful attention and management.
5. The Mzimvubu Water Project is expected to cost R 12.5 billion. The **financial and economic viability** has been questioned. Financial viability implies the project is evaluated at market prices. Economic viability implies that the project is evaluated at prices which reflect the relative scarcity of inputs and outputs. The main purpose of this project is to contribute to the development of an impoverished rural area of the Eastern Cape by making water available to the area. The investment by government must therefore be evaluated against the background of the projected contribution to social and economic development. A project of this nature may make economic sense, but not be affordable. In such a case government's continuous grants and subsidies may be necessary. The EIA study is not the right vehicle to determine financial viability and affordability. An economic cost benefit analysis (ECBA) was therefore done as part of this EIA and not a financial cost benefit analysis. The funding of the project is an important issue and during this analysis it became clear that it will take up to 10 years to attain maximum production from the irrigation scheme and possibly financial profitability. Financial viability can only be attained by grant funding on an annual basis without any repayment pre-conditions. The high poverty levels in the project area are such that it is improbable that more than 10% of the domestic users will be able to pay for the water. Therefore, a long term annual subsidy will have to be provided for. The Lalini Dam Hydro-Electricity Generation is financially viable and can be funded by loans.

6. The specific area of the Eastern Cape Province has a large untapped **agricultural potential**. Any agricultural development based on commercial principles will, however, be faced with a number of stumbling blocks. These include the problem of land ownership, shortage of management skills for commercial farming, available markets, and support structures such as production inputs and funding.
7. A large infrastructure project of this nature will result in an influx of people and consequently increase the demand for municipal services such as water, electricity, roads, sewerage, housing and social services (clinics, schools etc.). This will place a significant burden on an already over-extended **Local government**.

3. ISSUES AND RESPONSES

The comments and issues received from I&APs are recorded in **Table 2**.

Table 2: Issues and Responses

	Issue/Comment/Question	Date received	Origin	Response
1.	Design and Implementation			
1.1	General			
1.1.1	It was asked how the naming of the project worked and why it was named Mzimvubu.	14.05.2014 Siqhungqwini JSS PM	Mr Sigenu	The two multipurpose dams are located on the Tsitsa River. The Tsitsa River is a tributary of the Mzimvubu River. This project takes its name from the Mzimvubu River Catchment in which it is located. The Mzimvubu Local Municipality is, however, not affected. The object of the project is to stimulate socio-economic development in the Mzimvubu Development Zone, as defined by the EC Provincial Government, and so the scope of the feasibility study covered the whole catchment. At the beginning of the investigations it was not known which dam sites would be the best to meet the project objectives, and so it was not possible to limit the investigations to the Tsitsa River catchment alone.
1.1.2	Has the new N2 been taken into consideration in the design of the project?	28.05.2014 AFM	Cecilia Gyan (Department of Environmental Affairs)	The new N2 will be much further south-east of the existing one, and will not be impacted by the project. The dams will also not impact on the existing N2.
1.1.3	An enquiry about the new or upgraded bridges was made.	28.05.2014 AFM	Andrew Lucas (Department of Water Affairs)	Access roads and existing bridges in the vicinity of the proposed dam sites will need to be upgraded. Two bridges crossing the Tsitsa River will have to be demolished and relocated or raised.
1.1.4	At each dam there will be a waste water treatment works. Why is this needed or what is it for?	27.06.2014 via email	Ayanda Sigwela (Restoration Research Group)	The infrastructure associated with the dams includes accommodation for operational staff. The Waste Water Treatment Works are relatively small facilities that treat the effluent from these households and offices.
1.1.5	When will construction of the dam start?	16.04.2014 Lalini JSS PM	Mr Fukutwa	The Department of Water and Sanitation is planning to start construction before the end of 2014 (DWA to provide new

	Issue/Comment/Question	Date received	Origin	Response
				date). This will be dependent on obtaining the environmental authorisation from the Department of Environmental Affairs. This authorisation is a legal requirement and needs to be obtained before construction can commence.
1.1.6	Assurance was requested that this project would start on time.	16.04.2014 Lalini JSS PM	Mr Ngamlana	There is commitment from Government to start this project as soon as possible. The timing, however, depends on when authorisation is obtained. If there are complex appeals lodged against the project then this may delay the authorisation.
1.1.7	How will completion of the tertiary infrastructure be aligned with completion of the bulk infrastructure? Will there be a way for communities to access water while construction is taking place (through boreholes for example)?	28.05.2014 AFM	Mzandile Mbokwana (OR Tambo District Municipality)	Construction will start at the Ntabelanga Dam site first, as the dam will take longer to build than the pipelines. It will be possible for communities to be supplied from other sources in the interim, but these sources will not be looked at by the Department of Water and Sanitation as they fall outside the mandate of the Department.
1.1.8	What is the construction period?	28.05.2014 AFM	Siboniso Mbense (Department of Environmental Affairs)	A 3-year construction period is an indicative period for each dam. Construction may start at different times for each dam. Other construction activities can run in parallel if there is enough capacity. This will be looked at in more detail in the detailed construction programme.
1.1.9	How much time will it take for the dams to fill up?	28.05.2014 AFM	John Geeringh (Eskom)	Without releases, it will take about 1.5 seasons of average rainfall (the dam is 1.5 times the mean annual runoff from the catchment). The dam will not, however, need to be full in order to start supplying water.
1.1.10	Will secondary infrastructure be constructed by the Department of Water and Sanitation?	28.05.2014 AFM	John Geeringh (Eskom)	The intention is that the Department of Water and Sanitation constructs the primary and secondary water supply pipelines and for the District Municipalities to construct the tertiary water supply pipelines. The EIA will cover the primary and secondary domestic water supply infrastructure and the raw water supply system up to field edge of irrigated agriculture. However, the ecology, economic and social studies will take into account the proposed irrigated agriculture and change in land use and are seen as impact (consequence) of the project.
1.1.11	It was asked that the stages be completed before the	09.06.2014 via	Justice Sigenu	Scheduling of construction work will take into account the

	Issue/Comment/Question	Date received	Origin	Response
	summer rains start.	fax	(Resident)	disruptions of the rainy season.
1.1.12	Stakeholder explained that this project is long overdue. In 1959 a group of people came to investigate the Tsitsa River, at Qamata. The project was subsequently aborted due to land ownership and compensation issues. He expressed his hope that this project does not get cancelled again.	09.06.2014 via fax	Justice Sigenu (Resident)	Government is committed to seeing this project implemented as soon as environmental authorisation is obtained. Land ownership and compensation issues will be addressed during the EIA and implementation phase.
1.1.13	It was asked why the sod turning, on 11 April 2014 was not done in the area where the Ntabelanga Dam wall is being constructed.	14.05.2014 Siphungqwini JSS PM	Community member	The conditions of the existing roads make the Ntabelanga Dam site difficult to access. Once this project starts, the roads will be improved, making access easier and safer. The opening of the dam will therefore be done at the dam wall site.
1.2 EIA Process				
1.2.1	What is the difference between the footprint of the project and the water supply area?	28.05.2014 AFM	Andrew Lucas (Department of Water and Sanitation)	The footprint in terms of the EIA refers to the area that will be directly impacted by the physical infrastructure components of the project. The water supply area is the area in which people will receive water as a result of this project.
1.2.2	Reference is made to 'Presidential launch' of the project – does that mean the decision has already been made, irrespective of the EIA findings?	11.06.2014 via email	Dr Nicholas King (NGO)	The sod-turning that occurred in April 2014 is not viewed as any kind of Environmental approval and all the usual environmental authorisations will still be required before any construction activities can commence.
1.2.3	The Government have already indicated that the dam is going forward. How much will this influence any outcomes of the EIA? Will it be possible to come with a different view from what has already been published by Government? There has already been a sod turning even though the community had not yet been consulted for this development. The President's speech on the 17 June 2014 reiterated that the dam is going ahead. That is why I wonder whether the EIA processes will truly influence the government's decisions.	27.06.2014 via email	Ayanda Sigwela (Restoration Research Group)	The Environmental Assessment Practitioner (EAP) is undertaking the EIA in compliance with all of the National Environmental Management Act (NEMA) Regulatory requirements. The EAP and the Department of Environmental Affairs (DEA), who are the environmental authorising authority, do not consider the project to have commenced until a Contractor has been appointed and physical construction has commenced. The potentially affected communities and authorities have been consulted about the proposed development (see Chapter 6: Public Participation of the Scoping Report).
1.2.4	Why is the EIA being fast-tracked? Under whose legal authority?	11.06.2014 via email	Dr Nicholas King (NGO)	While the EIA is indeed being fast-tracked, all the requirements of the NEMA EIA Regulations, including Scoping and all the

	Issue/Comment/Question	Date received	Origin	Response
				<p>public participation requirements, are being met. The fast-tracking refers only to the time within which the reports are being produced, the Department of Water Affairs is reviewing and approving them, and the competent authority is reviewing them. There has been no compromising of any of the specialists' studies. In order to achieve this, however, some of the specialist studies had to commence (at risk) before the Scoping Report had been approved by the Department of Environmental Affairs. Should the approval of the Scoping Report and plan of study for EIA include any conditions that affect the specialist studies these will have to be addressed at that point in time?</p> <p>Our instruction, as the EAP, to fast-track the project in this manner, comes from the applicant, who is the Department of Water Affairs. Fast-tracking in this context must be understood to mean the avoidance of unnecessary delays.</p>
1.3 EIA Alternatives				
1.3.1	<p>The EIA is not assessing any possible activity alternatives in the construction of the dam, and the justification is that the money comes from the Department of Water and Sanitation and they do not have the mandate to implement other types of development projects. I, however, differ with this view. The Department of Water and Sanitation could:</p> <p>a. Construct smaller dams. Improve water infiltration by improving vegetation cover in the catchment to provide more volume and quality with improved winter flows. Then the extraction from those small dams will be more sustainable. This improvement of filtration will mitigate against big floods that are prevalent in this area.</p> <p>b. With improved underground water reserves (based on a. above) develop boreholes in villages which will provide more quality water.</p>	27.06.2014 via email	Ayanda Sigwela (Restoration Research Group)	<p>a. The technical feasibility study has looked into options of building smaller dams vis a vis the project objectives of supplying as many households as possible within economic reach of the dams, maximising the development of irrigated agriculture, developing hydropower for local consumption on the scheme as well as excess energy for revenue generation to improve the economics of the scheme, employment creation and above all socio-economic development of the area. On the technical side of the analysis, the potential sedimentation into the newly created reservoirs worked against smaller dams that could easily be silted up, thereby shortening the useful life of the project. Catchment rehabilitation and management is being implemented as part of the broader development in the catchment and also in direct support to the project. However, catchment management is not a mandate of the</p>

	Issue/Comment/Question	Date received	Origin	Response
	c. Change from dam provision to provision of rain-fed tanks.			<p>Department of Water and Sanitation, and so the Department has no real control of what should be done and when to improve infiltration capabilities of the country's river systems. Besides the issue of mandate, the real problem with the catchment is not insufficient stream flow, but rather soil degradation and the concomitant threat of sedimentation.</p> <p>b. Ground water could be a cheap source of water for the villages if the yields and quality are confirmed, but it will not address the objectives of the project especially socio-economic development of the area. The district municipalities will still likely continue to develop groundwater to supply those communities that cannot be reached by the project and other developments in the area. Isolated boreholes scattered throughout a wide area have been found by district municipalities (confirmed by Amatola Water at PSC meetings) to pose huge operational challenges. It is important to note that the development and operation of village boreholes is the mandate of district municipalities and not the Department of Water and Sanitation, although the Department can provide support where possible.</p> <p>c. Rain water harvesting will not, meet the project objectives as presented above. A rain water harvesting programme can be implemented in complementarity with the Mzimvubu Water Project. The two are not exclusive.</p>
1.4 Financial				
1.4.1	Is all the funding in place for this project?	28.08.2014 PSC Meeting	OR Tambo District Municipality	There is no allocation for the 2014/2015 financial year but there is for 2015/2016 and 2016/2017 financial years. The Director General of the DWS has met with Treasury to discuss this.

	Issue/Comment/Question	Date received	Origin	Response
1.5 Access Roads				
1.5.1	Concern was expressed about the access road to Lalini as it already has potholes. What will be done about this road?	16.04.2014 Lalini JSS PM	Mrs Lawana	The road to access the dam construction site will be upgraded. Additional roads in the study area will also be upgraded.
2. Legal				
2.1	The basis of your waste listed activities seems to be fairly outdated. Are you aware that there were amendments done in November 2013?	27.06.2014 via email	Ayanda Sigwela (Restoration Research Group)	The November amendments to the waste listed activities have been taken into account in the EIR. Please refer to section 2.4.4 in the EIR.
2.2	With regards to additional authorization, please consider National Environmental Biodiversity Act (NEMBA) Threatened or Protected Species (TOPS) Regulations in respect of protected plants other than trees covered by National Forest Act.	01.07.2014 via email	Sizakele Gabula (Department of Environmental Affairs)	The NEMBA TOPS have been considered in the Fauna and Flora specialist studies. Please refer to section 8.4 in the EIR or refer to the Floral Report in Appendix C(1).
2.3	The DWS newsletters indicate very roughly that sometime last year DWS made a decision to change from the Thabeng, Somabadi, and Ntabelanga sites to include Laleni because of the hydropower potential. According to the table below Laleni is not great for a number of reasons. Why then was the decision made to include it? If it is purely hydro power then how will this project be enabled? The DWS are not interested in power generation and it is too small for Eskom. If the dam is planned to be built by DWS only to be tendered to IPPs then it is an irresponsible use of public funds.	10.09.2014	Christiaan Bode	Lalini dam site is attractive when developed and operated as part of the conjunctive scheme. The screening table referred to in the query was prepared during the Preliminary Phase when dam sites were assessed individually before the conjunctive scheme option arose. It is thus incorrect to base the suitability of the site on the screening table. Also the Lalini dam site that was assessed at that stage was the bigger dam size originally investigated by Eskom, much bigger than the current Lalini - hence the distorted picture showing high capital cost and high environmental impacts. The poor score on irrigated agriculture is not valid any more since the site is now dedicated for hydropower generation, and so it would not make sense to assess its suitability based on irrigation potential. Low score on job creation is also misleading since Lalini is now coupled to Ntabelanga through the conjunctive scheme, and the score for Ntabelanga on job creation is very high (score of 1). Since the two sites are coupled it follows that Lalini should also score a 1; the score belongs to the conjunctive scheme and not the individual dam sites.

	Issue/Comment/Question	Date received	Origin	Response
				The decision was made to investigate the Lalini Dam as a balancing dam and headrace for hydropower generation to be used conjunctively with the Ntabelanga storage dam. Hydropower generation will provide a significant income to subsidise the high energy cost to supply potable and irrigation water to the communities in the supply area. For this reason the hydropower component will not be implemented as an IPP project, but a competent operator will most likely be appointed to operate the conjunctive scheme, including the hydropower plant. The funding model will dictate the ownership structure and no misuse of public funds will be allowed.
3. Public Participation				
3.1	This project is a very large project and the newspapers used to advertise were not sufficient. The Daily Dispatch is recommended to be used for future advertisements. There are not many people in the area that will read the documents provided and it is therefore recommended that the project be announced via the communal radios to announce meeting dates.	15.05.2014 Tsolo Town Hall PM	Mrs Silo (Department of Environmental Affairs)	Additional isiXhosa advertisements were placed in the Daily Dispatch as well as the Mthatha Fever and an English advertisement in the EP Herald. The use of the local radio stations has been investigated and it has been concluded that the Umhlobo Wenene FM is the most commonly listened to station within the affected project area as well as surrounding areas, with a listenership of 4.43 million people. An advertisement will be aired announcing the project and dates and locations of public meetings during the DEIR comment period.
3.2	How do communities in the catchment get involved/what processes are in place to involve them?	11.06.2014 via email	Dr Nicholas King (NGO)	Involvement of the communities has primarily been through the Traditional Authority structures and Ward Councillors in the affected areas. The Nkosis have nominated local facilitators that have been appointed by ILISO on a contract basis and form an integral part of our public participation team. Consultation commenced with an announcement phase during which newspapers adverts were published, on-site notices put up, and hand delivery of both English and isiXhosa Background Information Documents to residents of the villages in the study area, with the objective of making the project known and giving I&APs the opportunity to register on the database. The public comment period for the DSR took place from 8 May to 9 June 2014. During this period, public
3.3	Concern was expressed about efficiency of the consultation process with the tribal authorities.	13.06.2014 via email	Qondile Paliso (Department of Environmental Affairs)	
3.4	The traditional leaders for the areas need to be included in the process. Identifying key stakeholders should be done with care and a clear plan for engaging stakeholders needs to be put forward as the stakeholders are the ones who could delay the	16.04.2014 PSC Meeting		

	Issue/Comment/Question	Date received	Origin	Response
	<p>project. All NGO's should be engaged with and their comments included from the beginning of the project.</p> <p>There is a protocol through the Traditional Affairs and they should be informed to assist with informing the public.</p>	15.05.2014 Tsolo Town Hall PM	Mrs Silo (Department of Environmental Affairs)	meetings were held in key locations in the study area as advised by the Nkosis. English and isiXhosa copies of a Summary of the Scoping report were distributed to the public at these meetings. Additionally, full sets of the documents were available at six venues (four in the direct study area, as well as copies in Mthatha and East London as some of the municipalities and other government agencies are located in these towns), and on the Department of Water and Sanitation website.
3.5	It was asked where hard copies of the draft Scoping Report were available for the local people to review.	15.05.2014 Tsolo Town Hall PM	Mrs Silo (Department of Environmental Affairs)	<p>Hard copies have been left at the following venues from 9 May 2014 and are available until 9 June 2014 for comment:</p> <ul style="list-style-type: none"> • Siqhungqwini Junior Secondary School; • Tsolo (Mhlontlo Local Municipality offices); • Qumbu (Mhlontlo Local Municipality offices); • Mthatha (Walter Sisulu University); and • East London Central Library. <p>An additional hardcopy was left with Chief Mabantla who is the Chief for the ward where the Ntabelanga Dam will be constructed.</p>
3.6	The venues selected by the consultants have a tremendous limiting effect on creation of a wider and direct interactive opportunity with them. Our place is highly rural and with highly illiteracy rates and local communities to the site of development are not the only ones who are affected or stand to gain from this huge project. A decision to simply distribute documents wider in urban centres does not promote adequate consultation.	06.05.2014 Email	Zandisile Kanise	We are striving to achieve effective consultation with all interested and especially potentially directly affected parties. All specific suggestions and recommendations for improved consultation are considered.
3.7	Mzimvubu Dam stands out as a project that will not only affect the life of people where construction will take place, but it also stands to unlock the economic potential of this region as well for the entire resident population of our district. As such, a transparent consultative process that is opened to informed	09.05.2014 Email	Zandisile Kanise	The public participation process for this EIA aims to be transparent and all inputs from I&AP's are considered.

	Issue/Comment/Question	Date received	Origin	Response
	inputs from all interested stakeholders would assist raise pertinent strategic questions, and provides answers.			
3.8	Has the Mzimvubu Catchment Forum been engaged with?	28.05.2014 AFM	Andrew Lucas (Department of Water and SAnitation)	The Mzimvubu Catchment Forum are registered I&APs.
3.9	Concern was expressed that no meetings have been held in the upper part of the Ntabelanga Dam catchment. That area is not part of the water supply area.	28.05.2014 AFM	D.C. Lourens (Joe Gqabi District Municipality)	The project team requested that a proposed venue for an additional meeting be submitted to the EIA team for consideration. The team will consult further with a view to reaching that part of the catchment.
3.10	How do the Authorities Forum meetings related to the other public participation activities, such as the stakeholder forums?	11.06.2014 via email	Dr Nicholas King (NGO)	The Authorities Forum was established at the request of the Department of Environmental Affairs with the primary objective of expediting input to the EIA process and specifically to comment on the Scoping and EIA Reports to enable the Department of Environmental Affairs to undertake their reviews timeously. For this project two meetings are planned to coincide with the public comment period for the draft reports. At the first meeting the possibility of extending the scope and duration of the Forum was proposed, but this falls outside of the EIA mandate. For the EIA the Forum meetings are being dealt with as part of the public participation process, so minutes are included in the PPP records and issues and comments captured in the Issues and Responses Report. The other usual public participation activities including public meetings in the study area, as documented in the Scoping Report, to consult with other I&APs are being conducted.
4. Social				
4.1 Social implications				
4.1.1	It was asked if the residents of the area would benefit from this project.	14.05.2014 Siqhungqwini JSS PM	Community member	Residents will benefit as drinking water will be supplied to the community. The project will also generate jobs. Please refer to Section 9.5: Social Specialist findings in the EIR and the Social Impact Assessment in Appendix C(7).

	Issue/Comment/Question	Date received	Origin	Response
4.1.2	Would the young people receive training for the construction of the dam in order for them to apply for jobs as part of this project?	14.05.2014 Sihungqwini JSS PM	Community member	The Contractor will be in control of this but that it has been noted and would be added as a recommendation to the Department of Water and Sanitation. Please refer to Section 9.5: Social Specialist findings in the EIR. The Social Impact Assessment report is available in Appendix C(7).
4.1.3	Clarity was requested about permanent and temporary job creation. Job creation will improve the livelihood of the community.	16.05.2014 Lalini JSS PM 09.06.2014 via fax	Mr Ngxiti (Resident) Nkomeka Somagu (Resident)	Jobs will be created during the construction of the dam and associated infrastructure, however, these will only be for the duration of construction. Once construction has finished then there will be other jobs related to operation of the dams and agriculture that would be permanent. The Catchment Rehabilitation and Management Programme will also create additional employment for the communities. Please refer to section 9.5: Social Specialist findings in the EIR. The Social Impact Assessment report is available in Appendix C(7).
4.1.4	Majority of the youth in the area are unemployed. Will this project provide work for the youth so that they do not spend all their time drinking alcohol?	09.06.2014 via fax	Mphumli and Nokamwaba Ntshongwana (Residents) Ntombifuthi Nonkenka (Resident)	
4.1.5	The youth need to be first priority as they suffer the most.	27.06.2014 via fax	Pumza Mbatu- Khan (Resident)	
4.1.6	Will people within the community be allowed to rent their houses to the Contractors/construction workers during the construction of the dam?	14.05.2014 Sihungqwini JSS PM	Community member	The Contractors, who will be appointed for construction of the project, will be responsible to arrange accommodation for their staff, which includes renting suitable houses within surrounding towns and villages. Depending on the demand, community members could rent out their houses to the construction workers.
4.1.7	Cold wind will come off the dam. This will affect the people living close to the dam site.	16.05.2014 Lalini JSS PM	Mr Nomanqina (Resident)	Changes to the microclimate occur near a large water of body, such as a dam as it has greater heat capacity than the ground and absorbs greater heat because of the increase of evaporation. This process of evaporation can contribute to a decrease in the air temperature as well as increase the humidity of the surroundings, however, it has also been known

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				to reduce extremes in temperatures, stabilizing average daily temperatures. Although this is a relevant issue, these changes in micro-climate are expected to be small and therefore are not significant impacts to landuse or livelihoods.
4.1.8	I wish you to consider geohydrological impacts.	01.07.2014 via email	Sizekele Gabula (Department of Environmental Affairs)	<p>Groundwater levels adjacent to reservoir inundations may rise due to recharge, improving yields of existing boreholes. Boreholes located close to river channels downstream of Ntabelanga Dam might suffer a reverse effect due to slightly less average river flow. However, this is not expected to be a major problem as most settlements are well away from the river banks.</p> <p>In some cases the new water supply system to be constructed will replace existing groundwater supplied schemes (if deemed to be a better solution), some of which boreholes have in the past proved to be problematical and unreliable.</p>
4.1.9	In line with social impacts consider the possible influx of people for jobs as this may have implications for the municipality (services, etc).	01.07.2014 via email	Sizekele Gabula (Department of Environmental Affairs)	Please refer to section 9.5: Social Specialist findings in the EIR. The Social Impact Assessment report is available in Appendix C(7).
4.1.10	The fill-and-draw dams proposed may be problematic. People and cattle will move to the dam to collect water, this will be difficult if the edges are muddy. Access points should be included for cattle and people to access the dam safely.	28.08.2014 PSC Meeting	Isa Thompson (Department of Water and Sanitation)	Please refer to section 9.5: Social Specialist findings in the EIR. The Social Impact Assessment report is available in Appendix C(7).
4.1.11	How will this project impact on tourism and recreational activities in the area?	16.08.2014 PSC Meeting 28.08.2014 PSC Meeting	Mzimkulu Msiwa Andrew Lucas	This will be addressed in the Sustainable Water Utilization Plan for the dams which will be compiled by the DWS at a later stage. Please refer to section 9.5: Social Specialist findings in the EIR and to the SIA in Appendix C(7) for further information.
4.1.12	Maximising benefits of the project could include development for harvesting of animals and associated infrastructure. Has this been considered?	28.08.2014 PSC Meeting	Andrew Lucas	Maximising the socio-economic benefits of the project will require all spheres and branches of government to actively improve and support the capacity of the receiving environment.

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4.2 Safety				
4.2.1	Concern was expressed about the young children that will be endangered by the dam. There will be many dangers during construction as well as once the dam is operational, as it would be a large expanse of open water, posing a threat for potential drowning.	16.05.2014 Lalini JSS PM	Mrs Nomanqina (Resident)	The construction site will be fenced off during construction as a restricted area, warning notices will be strategically placed around the site and a safety officer will be appointed to manage safety matters on a daily basis according to the safety policy of the Department of Water and Sanitation. Visitors will be escorted around the construction site and provided with safety gear to wear during a tour of the site. The area around the dam wall, and if need be, the dam basin, will be fenced off after construction. If necessary, an education campaign will be conducted to teach the communities about the associated risks. A Sustainable Utilisation Plan for each dam will be developed to address these and other issues. Please refer to the EMPR in Appendix D.
4.2.2	It was asked that the dam be fenced off and closed on top.	16.05.2014 Lalini JSS PM	Mr Tshitshi (Resident)	The safety and security policy of the Department of Water and Sanitation. has provision for the dam wall and dam basin to be fenced in consultation with the local leadership. The normal practice internationally is not to close the top of the dam.
4.2.3	Stakeholder stated that Safety needs to be addressed in the EIA process.	12.06.2014 via fax	Sithembiso Jokazi (Resident)	Please refer to the Social Impact Assessment in Appendix C (7) for Safety of communities and refer to the EMPR in Appendix D for the safety of construction workers.
4.2.4	Stakeholder stated that safety clothing needs to be provided during construction.	11.06.2014 via fax	Olivakhe Vakala (Resident)	All construction workers will be required to wear the appropriate personal protective equipment. This typically includes safety shoes, a reflective vest, a hard hat, and for some activities, gloves, goggles ear muffs and sunhats,
4.3 Positive Feedback				
4.3.1	I appreciate you letting such a good project in my community, It will help us find jobs opportunities and uplift the standard of living.	01.06.2014 via email 11.06.2014 via fax	Siphesihle Magazi (Resident) Masibulele Mkona (Resident)	Noted.
4.3.2	Appreciation for the project was expressed. This	14.05.2014	Mr Sigenu	Noted.

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	project will benefit the community, especially with the roads being upgraded. The hydropower plant may also, at a later stage, help the community get electricity. The positive benefits seem to outnumber the negatives and this pleases the community.	Siqhungqwini JSS PM	(Resident)	
4.3.3	This project will have positive spin offs for the area. He looks forward to this project and that he is in favour of it.	15.05.2014 Tsolo Town Hall PM	Mr Duma (Resident)	Noted.
4.3.4	The project will be beneficial to the community, in terms of job creation as there is a high number of unemployed youth in the area and will reduce alcohol abuse.	16.05.2014 Lalini JSS PM 11.06.2014 via fax 11.06.2014 via fax 12.06.2014 via fax	Mr Tshitshi (Resident) Sive Saunders (Resident) Baxolele Mvubu (Resident) Yolisa Nunu (Resident)	Noted.
4.3.5	The project will assist in relieving poverty and create job opportunities.	09.06.2014 via fax 11.06.2014 via fax	Kholosa Langabi (Resident) Samkelo Mapotolo (Resident) Lulekile Mbombo (Resident) Ntombesibini Nunu (Resident)	Noted.
4.3.6	The community will experience growth through the	14.06.2014 via	Sinniri Jokazi	Noted.

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	creation of these dams and through water development.	fax 11.06.2014 via fax	(Resident) Nonzwakazi Constance Sodinga (Resident)	
4.3.7	This project will help everyone in South Africa, not only the people in the surrounding community. People will also benefit from the jobs that will be created.	09.06.2014 via fax	Phatiswa Ntshongwana (Resident)	Noted.
4.3.8	Stakeholder stated he is proud of the project as it will provide the people with better water.	12.06.2014 via fax	Zukile Mkhanzi (Resident) Samkelo Mapotolo (Resident)	Noted.
5. Potential Waste/Pollution				
5.1	Concern was expressed about the chemicals that would be used during construction and how this may affect the community, including livestock and grazing land.	14.05.2014 Siqhungqwini JSS PM	Community member	As Part of the EIA, an Environmental Management Programme (EMPR) has been compiled which states rules and methods that the Contractor must follow with regards to storage and spillage of chemicals. This is in order to reduce the impact on the surrounding land and people. In addition, during construction, river water samples will be taken for testing to make sure that there is nothing harmful in the water. The EMPR is available in Appendix D.
5.2	Stakeholder stated that inappropriately dumped waste (such as cans and plastic bags) will also pollute the dam and could cause the water pipes to become blocked.	09.06.2014 via fax	Sivuyise Mange (Resident) Asanda Zihlewe (Resident) Zukisa Madasa (Resident)	The Environmental Management Programmes applicable to the construction of the dams have waste management requirements that all Contractors must adhere to. These will be monitored for compliance. The EMPR is available in Appendix D.
5.3	A dumping site needs to be created so that waste	23.06.2014 via	Vuyelwa Tobi	

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	materials and products can be isolated to one area.	post	(Resident)	
5.4	This project will result in additional water being supplied for domestic use. Has the resultant effluent been considered?	28.08.2014 PSC Meeting	Nikite Muller	The project includes the design and construction of the dams and bulk water supply (primary and secondary pipelines) while the tertiary pipelines to water users are the responsibility of District municipalities. The latter are also responsible for waste water treatment and will need to upgrade facilities where necessary.
6. Soil Erosion				
6.1	Soil erosion may be a problem.	09.06.2014 via fax	Sivuyise Mange (Resident)	Soil erosion is indeed a big issue in this catchment. The Department of Environmental Affairs has therefore initiated a Catchment Rehabilitation and Management Programme aimed at addressing this and related issues. This project includes the removal of alien invasive species, rehabilitation of eroded areas and other land management exercises. The project has already commenced. Should any activities of the Catchment Rehabilitation and Management Programme (e.g. the construction of soil erosion abatement structures) require environmental authorisation or a water use licence these are not included in the applications that have been submitted for the dams, and separate EIAs will have to be undertaken for them. There is close liaison between the catchment management and Mzimvubu Water Project teams to focus their initial activities on areas that will most benefit the dams.
6.2	Catchment rehab is "outside the scope of the EIA" – however, soil erosion is a huge issue in this catchment and this is absolutely critical to dam life, so the two cannot be disconnected – how will this be addressed?	11.06.2014 via email	Nick King (NGO)	
6.3	Many dams in the Transkei have been silted up how do you take care of this?	01.07.2014 via email	Sizekele Gabula (Department of Environmental Affairs)	
7. Relocation and Compensation				
7.1	What will happen to structures (houses) near or within the project footprint?	28.05.2014 AFM	Tshililo Vele (Joe Gqabi)	The EMPR includes a draft chapter of the Relocation Action Plan (RAP). It provides an indication of the number of

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			District Municipality)	structures and resources (such as cultivated fields) that will potentially be directly affected by the project. The policy is that no individuals who will be affected by the project should be worse off after the project than they are now.
7.2	Are there any set measurements regarding the area that would become inundated so that people who may need to be relocated can prepare themselves to be moved.	14.05.2014 Sihungqwini JSS PM	Community member	A team was sent out on 23 June 2013 to 11 July 2014, including the local facilitators to identify potentially impacted structures and fields as part of the EIA, however, this study will only identify how this may be impacted and a Relocation Action Plan be compiled.
7.3	The project will affect the communities, people's homesteads, grazing lands and agricultural fields. What are the plans to compensate for this?	15.05.2014 Tsolo Town Hall PM	Mrs Tsama (Department of Environmental Affairs)	No negotiations, however, with the occupier or the Chiefs will be done during the EIA. This would be undertaken just before the project is implemented and only then will the individuals affected be communicated with. The policy of Government is that the people that are affected should not be worse off than they are before the project commences. Please refer to the SIA in Appendix C(7) for further information.
7.4	The land at the site of the Lalini Dam is used as a grazing area. What compensation will be given to the people as they will lose this grazing land?	16.05.2014 Lalini JSS PM	Community member	
7.5	Stakeholder asked about the reimbursement for the land and houses that will be affected by the dam. It was asked how this would be compensated for.	09.06.2014 via fax	Justice Sigenu (Resident)	
7.6	The following questions need to be answered: <ul style="list-style-type: none"> • What economic opportunities will be unlocked by the dam during implementation, and how local people will be positioned to take advantage of the opportunities? • What opportunities will be available during planning and execution of this project – here we have a lot of unemployed graduates – in all fields - who could benefit through internships, short-term employment associated with big companies that would be employed to execute the project? • How will the project affect households and communities? 	09.05.2014 Email	Zandisile Kanise	This issues have been addressed in detail in the Social and Economic Impact Assessments available in Appendices C(7) and C(8) respectively. Generally, the recruitment of labour will benefit the local communities.
7.7	In previous cases, alien vegetation growth that was flooded caused a lot of unhappiness with communities, as the plants were being used by	28.05.2014 AFM	Andrew Lucas (Department of Water Affairs)	If such plants qualified as a resource that is currently being used, and they are lost, then they will be addressed in the Relocation Action Plan.

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	people and because people derived an income from removing the vegetation through, for example, <i>Working for Water</i> . He asked how this aspect was being dealt with in the EIA.	16.06.2014 PSC Meeting		
7.8	How will the homes that have graves be moved? Culturally, a cow needs to be slaughtered to apologise to the ancestors if a grave is to be removed.	14.06.2014 via email	Siphesihle Magazi (Resident)	<p>The Environmental Impact Assessment is intended to inform the authorities that must approve the development of the Project which is now at a proposal stage. The Impact Assessment will inform the authorities on, for instance, how many graves will be affected and what processes will have to be followed to deal with that matter. There are various laws that must be complied with when the impact on graves and other cultural and heritage resources is managed during implementation of the project. This happens during the implementation phase, when dams and other structures are constructed, and not during this assessment or preparation phase. Various options are open to the families of deceased persons, whose graves are affected by such development, including relocation of the graves to another cemetery. The relocation process includes exhumation and reburial in close cooperation and after consultation with the affected families. The consultations include agreeing on the processes to be followed which usually include all the traditional customs and rituals which are for the cost of the project. These customs include paying homage to the ancestors which often involve the slaughtering of animals. The project also covers the cost of these animals. If the affected family itself has to be relocated because their house is affected by the project then the graves are usually reburied in a cemetery at or close to their new house.</p> <p>There is no intention of physically touching or removing any graves during the Environmental Impact Assessment which is now being undertaken. It is now only necessary to determine, as accurately as possible, how many graves are affected and to estimate the extent of the work that will be necessary to</p>

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				<p>relocate these graves after detailed social consultations. It is also necessary to estimate the cost of these activities so that a budget can be prepared for purposes of securing the necessary funds for the project.</p> <p>Please refer to section 9.8: Heritage Specialist Findings in the EIR or the HIA in Appendix C(5) for further information.</p>
8. Borrow areas and Quarries				
8.1.	There are no permitted quarries or mining areas within OR Tambo Municipality. What will be done about this?	15.05.2014 Tsolo Town Hall PM	Mrs Silo (Department of Environmental Affairs)	All the quarry areas identified will be within the dam basin. They will be new quarries and borrow areas and an Environmental Management Plans are being compiled which will be submitted to the Department of Mineral Resources for approval. If there are insufficient materials available within the dam basins then additional material will be bought from the local suppliers.
8.2.	A request was made for clarity on the source of construction materials. If materials need to be sourced from commercial sources, the traffic impact may be significant. If that is the case, it should be included in the EIA.	28.05.2014 AFM	Sindi Dlomo (Department of Environmental Affairs)	There will always be some level of uncertainty as the geotechnical studies only predict what materials will be found underground on site. These predictions will only be verified once excavations start for construction. If the quarry material identified in the dam basin is not suitable, the size of the quarry may increase or other sources near the dam site would have to be considered. At this stage, it is foreseen that the only material that will be brought to site for concrete production is cement.
8.3.	Concern was expressed that there would be more people affected once it became known that infrastructure would be constructed in the area, due to people seeking to obtain compensation.	18.06.2014 PSC Meeting	Ayanda Sigwela	The Traditional Authorities and Ward Councillors have been consulted with and their assistance sought to control use of land (which has not yet been allocated to anyone) in the study area, in order to avoid this.
8.4.	A land reservation agreement should be entered into with the Kings (not the Chiefs or the Councillors).	18.06.2014 PSC Meeting	Mzimkulu Msiwa	The project area to be inundated does not currently have a King, but the proposal will be pursued through other local authority structures.
9. Agriculture, irrigation and drinking water				
9.1	Fencing for the agricultural fields was requested.	16.05.2014 Lalini	Mrs Jamjam	This is not part of the Department of Water and Sanitation

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		JSS PM	(Resident)	infrastructure project, but may form part of the Catchment Management Programme for future projects.
9.2	What areas will be irrigated?	16.05.2014 Lalini JSS PM	Mrs Kasa (Resident)	The exact locations of the pieces of land to be developed for irrigation have not yet been demarcated.
9.3	Request for additional equipment such as tractors to help the people plant crops.	16.05.2014 Lalini JSS PM	Mr Ndyoki (Resident)	The development of on-farm infrastructure is not a part of the project that this EIA is applying for authorisation.
9.4	It was asked whether aquaculture could be developed as part of the project.	20.05.2014 Agriculture workshop 28.08.2014 PSC Meeting	Puleng (Department of Agriculture, Forestry and Fisheries)	The development of aquaculture is not a component of the project as configured for this EIA. However, it is acknowledged that aquaculture would be a viable option in the impoundments. This is especially true since the segment of the river is not sensitive from a fish ecology point of view. The Ntabalanga Dam may be suitable for aquaculture with trout as the water in the dam may be cool enough to support the fish there. Both the Ntabalanga dam and the Lallini dam can potentially be used for aquaculture of Tilapia (<i>Oreochromis mossamicus</i>) and/or catfish (<i>Clarias gariepinus</i>). Tilapia have more commercial value but both species can contribute to the production of protein in the area.
9.5	Another EIA may be required to establish commercial agriculture in the area (e.g. to apply for vegetation clearance).	28.05.2014 AFM	John Geeringh (Eskom)	Noted.
9.6	Are there any plantations in the area?	28.05.2014 AFM	Andrew Lucas (Department of Water Affairs)	Most of the land has been cultivated for crops, has been previously cultivated, or is used for grazing. There were no identified plantations.
9.7	Stakeholder expressed appreciation for the project and that it would assist to fulfil the community's need for water for both the households and the businesses. It was asked if permission would be needed in order to utilize water while the EIA is underway.	09.06.2014 via fax	Yanga Mthathi (Resident) Tinyiko Mtati (Resident)	Communities are allowed to continue using existing sources for their domestic water needs including village standpipes, boreholes, springs, streams and rivers. The EIA is only meant for the dams and pipelines, but not existing sources of water.
9.8	Stakeholder stated that drinkable water is a scarce resource in the project area and asked if this dam	09.06.2014 via fax	Mphumli and Nokamwaba	Yes. The project includes a Water Treatment Works to clean the water to drinking quality. This potable water will then be

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	would provide clean drinking water for the people.		(Residents) Allman Ntshongwana (Resident)	pumped in pipelines to reservoirs. The district municipalities will distribute the water from these reservoirs to individual households or communities.
9.9	A request was made to supply purified water to the rural areas.	09.06.2014 via fax	Ntombifuthi Nonkenka (Resident) Nokubonga Saunders (Resident) Bolekwa Ntshongwana (Resident) Nikimbako Ntshongwana (Resident) Buyisile Godfrey Hlaletseni (Residents)	
10. Hydropower				
10.1.	Where will the power plant at Lalini be? There are various options in terms of connection points from the new power line to the existing grid. If a new sub-station is required, this will need to be discussed with Eskom.	28.05.2014 AFM	John Geeringh (Eskom)	Discussions with Eskom have been initiated and are ongoing.
10.2.	An enquiry about the hydropower component at Ntabelanga Dam was made.	28.05.2014 AFM	Magazi Mhlanga (Department of Rural	In addition to the main hydropower plant at Lalini Dam, a small hydropower plant will be built to harness the hydropower

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			Development and Land Reform)	potential at the Ntabelanga Dam.
10.3.	There will be local needs for the electricity generated (e.g. Water Treatment Works and Waste Water Treatment Works, operators housing, as well as communities within the immediate vicinity). Will the Department of Water and Sanitation operate the power plant? If so, it will need a generating licence.	28.05.2014 AFM	John Geeringh (Eskom)	<p>Institutional arrangements are still being looked at. A decision regarding ownership and roles and responsibilities has not yet been taken. This decision will be taken at a higher level.</p> <p>Separate applications have been submitted to Department of Environmental Affairs (water infrastructure, roads and power generation) in order to facilitate the transfer of authorisations to the various implementing authorities (if required).</p>
10.4.	If Eskom is invited to be the operator of the hydropower plants, the Department of Energy should be involved.	28.05.2014 AFM	Joan Arrikum (DPE)	Consultation with the Department of Energy is ongoing.
10.5.	Will Eskom or an IPP be operating the hydropower scheme?	18.06.2014 PSC Meeting	Charles Kumbula	This will be decided at a later stage as part of the institutional arrangements.
10.6.	Has the effect of the releases from the Lalini Dam been looked at all the way to Port St Johns?	28.08.2014 PSC Meeting	Isa Thompson	<p>Yes. With regards to Ntabelanga Dam only, provided that the EWR requirements are met, then the impact on the estuary was nil given the relative volumes of water passing through the Ntabelanga Dam compared with the 2 800 million m³/yr in the main Mzimvubu river, as well as the distance from the estuary, which is some 200 km along the river.</p> <p>Similarly, whatever flows enter the Lalini dam are routed relatively quickly through, either as EWR or via the hydropower plant. If the hydropower plant operates as a base load station, then the total daily release downstream is fairly “in and out” with little change to the overall flow regime. In such a case, it would be logical that this does not affect the Estuary – the main Mzimvubu river is such a larger component of total estuary flow, and the Estuary is 138 km downstream of Lalini HEP.</p> <p>Operating the HEP as a purely peaking station might give a</p>

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				<p>different picture if no flow return balancing is installed, as the instantaneous outflow rate from the HEP (150 MW option) could be up to 75 m³/sec, which is about the same as the average flow in the Mzimvubu at the estuary mouth.</p> <p>The biggest issue in the estuary would be in the above mentioned peaking scenario where there would be surge volumes which would possibly affect the ecology of the system and possibly the estuary, with the natural tidal movements being affected by the peaking surges to some degree. Based on the distance to the mouth and the volume of water added to the system from the main Mzimvubu River the significance may be very limited.</p> <p>Please refer to section 9.2: Aquatic Ecology findings in the EIR or to the Aquatic Ecology Report in Appendix C(3) for further details.</p>
10.7.	One of the original motivations for the Ntabelanga Dam was to transfer water to surrounding catchments. How will this impact the Hydropower scheme?	28.08.2014 PSC Meeting	David Keyser	If the inter-catchment transfer from Ntabelanga Dam happens it would be part of a bigger scheme of dams to be built in the Mzimvubu River catchment. The Ntabelanga Dam will thus mainly act as a transfer node tapping into the yields of the other dams still to be developed in the future.
10.8.	Could the mini hydropower plants not be adequate to supply the demands of the project, and not be transferred into the grid.	28.08.2014 PSC Meeting	Andrew Lucas	This is not practical. This type of power generation would be variable and season dependent and thus there would be no reliability from this system for running the pumps
11. Water Quality				
11.1	Will the Reserve determination go all the way to the mouth of the river? The potential impacts on the estuary need to be considered and managed.	28.05.2014 AFM	John Geeringh (Eskom)	The estuarine Reserve has been done for the Mzimvubu River, and has been addressed in the Aquatic Ecology Study, available in Appendix C(3).
11.2	An enquiry was made about the areas close to the dam that have been earmarked for irrigated agriculture. Will the EIA consider potential pollution from those areas (e.g. from the use of fertilisers) into	28.05.2014 AFM	John Geeringh (Eskom)	The impact on water quality by fertilizers contained in the runoff from irrigated areas was determined by calculating the potential salinity level in the dam. The results show that the conductivity in the dam will increase by 2%. The contribution

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	the river?			<p>from phosphorus will occur in the same ratio as conductivity and will thus also increase by 2%.</p> <p>Although this increase is relevant it is not significant and the water quality will still fall within the ideal range.</p>
11.3	The trees that are surrounding the Tsitsa River that will be inundated may at some point pollute the water, thus affecting the water quality. Before the dam is flooded the trees need to be removed.	<p>09.06.2014 via fax</p> <p>23.06.2014 via post</p>	<p>Sivuyise Mange (Resident)</p> <p>Sivuyile Mazeke (Resident)</p> <p>Asanda Zihlwele (Resident)</p> <p>Zukisa Madasa (Resident)</p> <p>Vuyelwa Tobi (Resident)</p>	<p>A potential problem that could occur is that any vegetation that is left in the dam basin will begin to decompose once the dam basin is filled with water. This will create anoxic conditions that may persist for a considerable period of time, and will pose a risk to downstream aquatic life and will render the dam basin itself unfit to support aquatic life.</p> <p>The anoxic zone may consist as close as two meters from the surface.</p> <p>For the above reasons, it is strongly recommended that the dam basin is cleared before inundation.</p>
11.4	The dams will impact the water quality downstream. Sediment that will now be trapped by the dams will have a nutrient load attached. These nutrients will no longer be available downstream. What will the impact of this be and has this been considered/investigated?	28.08.2014 PSC Meeting	Nikite Muller (Amatola Water)	<p>Sedimentation allowance volumes for the Ntabelanga dam catchment and incremental Lalini dam catchment have been determined.</p> <p>Initially the sediment load in the river downstream will reduce significantly. This is unavoidable. Coarse sediment will settle at the inlet to the dam and finer suspended material will be carried through. This will have a very limited impact the Tsitsa river and a negligible impact on the Mzimvubu River system and the reduced sediment inputs can potentially be a positive change to the system.</p> <p>A catchment management plan should be developed and should address sediment generation and control in the</p>

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				catchment and any areas of significant erosion downstream of the dams should be rehabilitated.
12. Other				
12.1	What is the purpose of the weirs?	16.04.2014 PSC Meetings		The weirs will be used to monitor the water flow in the river, both upstream and downstream of the proposed dams. The information gathered will be used to determine how much water needs to be released from the dam in order to protect the ecological functioning of the river..
12.2	It was asked if the impacts on tourism have been considered, especially at the Tsitsa Falls, and what the impact of the dams will be on the flow regime.	28.05.2014 AFM	John Geeringh (Eskom)	The issue of tourism has been investigated as part of the EIA phase, from both the social and ecological perspectives. The Reserve determination has been finalised, see section 5.2.5 and as part of the Water Quality study and has been taken into account in the design of the scheme.
12.3	An enquiry was made about the dynamics of land ownership in the area and asked if there was any land owned privately.	28.05.2014 AFM	Magazi Mhlanga (Department of Rural Development and Land Reform)	All land in the project area belongs to the State and the Traditional Authorities are the custodians of this land. The Department of Water and Sanitation will only acquire land once the project has been authorised and is ready for implementation.
12.4	A SEA should be done for the whole catchment, not EIA's for individual projects.	12.06.2014 via email	Dr Nicholas King (NGO)	<p>The following have been taken into account in the Scoping Phase:</p> <ul style="list-style-type: none"> • National Strategy for Sustainable Development, 2011 • National Development Plan (NDP); • National Spatial Development Plan (NSDP); • Strategic Integrated Projects (SIP), • Eastern Cape Environmental Implementation Plan (EIP) (2nd edition as in GN 82 on 24 March 2014), and • Integrated Development Plans (IDP) for all municipalities which should include Strategic Environmental Frameworks). <p>The alternative dam site assessment process undertaken in the Feasibility Study is summarised in Chapter 5.2 of the</p>

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				<p>Scoping Report. A Reserve determination for an Ecological Water Requirements site downstream of the proposed Ntabelanga Dam and for the estuary was undertaken in the Feasibility Study and is being used in the yield analysis and EIA.</p> <p>A detailed Reserve for downstream of the proposed Lalini Dam was undertaken by DWS in September 2014. This information will be used in the EIA as well as the WULA.</p>
12.5	Mention is made that the Department of Water and Sanitation will only be responsible for primary and secondary infrastructure, and tertiary infrastructure will be for the Municipalities – as experienced with other such projects, there are never guarantees/contracts/ budgets in place in Municipalities in order to do so! Please clarify how this will be addressed/assured?	12.06.2014 via email	Dr Nicholas King (NGO)	Municipalities are involved in the planning and implementation of the project, so they should be able to plan ahead to pick up on their roles at the appropriate times. The cost estimate developed is for the whole project including tertiary infrastructure, and this information will be used to inform decision making on the appropriate institutional and financing arrangements for the different components of the project. These arrangements are being investigated in the ongoing feasibility study and will be finalised during the decision making phase. As a Strategic Integrated Project, the project is being coordinated by the Presidential Infrastructure Coordinating Commission who provide the necessary oversight.
12.6	There is quite some momentum building around how best to integrate climate change concerns into EIA processes (in SA as well as elsewhere) especially in large infrastructure projects with long lifetimes, such as dams – are there any specific requirements in the Terms of Reference on this?	12.06.2014 via email	Dr Nicholas King (NGO)	Please refer to Chapter 8: Key Issues, section 8.2.1: Climate change projections and risks in the Final Scoping Report.
12.7	Will the project consider any offset programmes?	23.06.2014 via email	Dean Muruven (World Wildlife Fund)	<p>The EAP and specialists will consider the mitigation of all potential significant impacts. The mitigation hierarchy (avoid, mitigate, restore or rehabilitate and offset) approach enables an infrastructure development project to work towards “no net negative impact”, and ideally a net gain.</p> <p>The following mitigation hierarchy is being used:</p> <ul style="list-style-type: none"> • Avoidance: measures taken to avoid creating impacts

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				<p>from the outset, such as careful spatial or temporal placement of elements of infrastructure, in order to completely avoid impacts on certain components of biodiversity;</p> <ul style="list-style-type: none"> • Minimisation: measures taken to reduce the duration, intensity and / or extent of impacts (including direct, indirect and cumulative impacts, as appropriate) that cannot be completely avoided, as far as is practically feasible; • Rehabilitation/restoration: measures taken to rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and/ or minimised; • Offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and / or rehabilitated or restored, in order to achieve no net loss or a net gain of biodiversity. Offsets can take the form of positive management interventions such as restoration of degraded habitat, arrested degradation or averted risk, protecting areas where there is imminent or projected loss of biodiversity.
12.8	The Mzimvubu River is one of the main rivers flowing in the Eastern Cape Drakensberg and Pondoland Coast water source areas, these have <3% protection and are critical for water supply. This should be taken into account during the EIA.	23.06.2014 via email	Dean Muruven (World Wildlife Fund)	Part of the purpose of the project is to supply domestic water needs of communities in the project area. In addition, the Reserve determination undertaken in the feasibility study took into account basic human needs of communities living downstream of the two dam sites.
12.9	Although the Catchment Rehabilitation is a separate project but in respect of any suggestions on Biodiversity offset it presents an opportunity.	01.07.2014 via email	Sizakele Gabula (Department of Environmental Affairs)	The DEA officials responsible for the Catchment Rehabilitation and Management Plan have been notified of this suggestion.
12.10	Stakeholder stated that the down-stream communities who use the river for various purposes need to be considered, there are no bridges so any stream flow changes can significantly impact on	01.07.2014 via email	Sizakele Gabula (Department of Environmental Affairs)	The influence of the project on access across the river is being investigated to maintain the status quo. New bridges to replace those inundated by the dam basins are part of the project infrastructure. The operation of the dams is planned to release

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	them. This links to flooding due to climate change and dam management/operations. In Mthatha the Dam opening during the 2013 April floods negatively affected the downstream land users.			the environmental water requirements (low flows in winter and dry periods) which should not significantly affect downstream users. The dams will not have gates for large releases and therefore large floods will pass through the dams, which will decrease the flood peak slightly.
12.11	Future development around the dams will result as a knock-on effect from the development of the dams. There will be a migration of people to the area. Has an area been set aside for industrial and urban settlement and development?	28.08.2014 PSC Meeting	Andrew Lucas	The capacity of the receiving environment has been identified as a risk of this project and, all spheres and branches of government will have to co-operate to ensure that opportunities are not missed and negative impacts are not consequent.
12.12	Impacts on terrestrial plants to consider search and rescue of protected plants including where they will be relocated to (Rescue Plan for Plants).	01.07.2014 via email	Sizekele Gabula (Department of Environmental Affairs)	Please refer to section 9.3: Flora Specialist Findings of the EIA or to the Flora Specialist Study in Appendix C(1).