

APPENDIX O

COMMENTS AND RESPONSES REPORT

PROPOSED UMKHOMAZI WATER PROJECT PHASE 1

EIA REPORT (FINAL)

COMBINED COMMENTS AND RESPONSES REPORT

RAW WATER



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

- DEA Ref. No.:
- Smithfield Dam - 14/12/16/3/3/3/94
 - Water conveyance infrastructure - 14/12/16/3/3/3/94/1
 - Balancing Dam - 14/12/16/3/3/3/94/2

POTABLE WATER



DEA Ref. No.: 14/12/16/3/3/3/95

October 2016



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1 INTRODUCTION

This Comments and Responses Report summarises the issues and queries raised, as well as statements made, by Interested and Affected Parties (I&APs) through correspondence received (including completed Reply Forms and Comments Sheets, letters, faxes and e-mails) and discussions at meetings during the Environmental Impact Assessment (EIA) process to date for the proposed uMkhomazi Water Project Phase 1 (uMWP-1). This report also attempts to address the comments through responses and input provided by the project teams, which include the project proponents (uMWP-1 Raw Water - Department of Water and Sanitation; uMWP-1 Potable Water - Umgeni Water), technical teams, specialists and EIA team.

When reviewing the Comments and Responses Report, please take cognisance of the following:

- ❖ Although the uMWP-1 Raw Water and Potable Water components are being subjected to separate Environmental Impact Assessments, a combined public participation process is being conducted for both these projects due to their interrelatedness. For the sake of an understanding off all the issues pertaining to the uMWP-1, this Comments and Responses Report includes issues raised for the uMWP-1 Raw Water (distinguishing between Smithfield Dam, Tunnel and Balancing Dam) and uMWP-1 Potable Water. However, the relevance to these components is indicated in the tables to follow in Sections 2 – 6 to facilitate decision-making and to allow for an understanding of the bearing of the comments on the specific project-related elements.
- ❖ Where necessary, the Comments and Responses Report evolved and the responses provided during the Scoping and EIA phases were updated or expanded upon as new information became available during the course of the EIA and Feasibility Study.
- ❖ The two primary sources of comments that were received to date are (1) correspondence and (2) meetings. To allow the reader to easily distinguish between these two forms the table rows are filled with the following different colours:

Correspondence – red fil

Meetings – green fil

- ❖ The following project team members primarily responded to the comments received during meetings (refer to minutes of meetings):

Name	Affiliation	uMWP-1 Module	Role
K. Bester (KB)	Department of Water and Sanitation	Module 1	Applicant
S. Moodley (SM)	Department of Water and Sanitation	Module 1	Applicant
L. Archer (LA)	Umgeni Water	Module 2	Applicant
G. Subramanian (GS)	Umgeni Water	Module 2	Applicant
H. Pieterse (HP)	AECOM	Module 1	Technical Team
B. Shinga (BS)	AECOM / ACER	Module 1	Technical Team
A. Doorgapershad (AD)	Knight Piésold	Module 2	Technical Team
G. Lempert (GL)	Knight Piésold	Module 2	Technical Team
K. Naidoo	TCTA	Module 1	Implementing Agent
J. Nyakale	TCTA	Module 1	Implementing Agent
D. Henning (DH)	Nemai Consulting	Modules 1 & 2	Environmental Assessment Practitioner

- ❖ A number of key issues were echoed by various I&APs. In these instances where related issues were raised multiple times, a reference is provided to the comment number where the associated response is recorded.
- ❖ Where necessary, additional information from the project team was included in certain responses that were provided to comments raised during meetings. This was done to allow for these comments to be addressed in greater detail.
- ❖ This report does not necessarily provide verbatim comments from meetings, but rather reflects the essence of the discussions held with I&APs.
- ❖ For ease of reference, the comments and accompanying responses are separated into the categories below. The reader is urged to also read the consolidated comments received from the various I&APs, which are appended to the Scoping and EIA Reports, for the contextualisation of the comments.
 - **Comments received during the Project Announcement Phase -**
 - Alternatives;
 - Terrestrial Ecology;
 - Freshwater and Estuarine Ecology;
 - Traffic, Road Network and Access;
 - Visual, Air, Noise Impacts;

- Agriculture;
 - Security;
 - Socio-economic Impacts;
 - Public Participation;
 - Property;
 - Water Use and Supply;
 - Electrical Requirements;
 - Existing Infrastructure;
 - Project Timeframe; and
 - Construction Methodology.
- **Comments received during the review of the Draft Scoping Reports -**
 - Alternatives;
 - Terrestrial Ecology;
 - Freshwater and Estuarine Ecology;
 - Sediment and Sand Budget;
 - Water Resource Management;
 - Water Use and Supply;
 - Traffic, Road Network and Access;
 - Visual, Air, Noise Impacts;
 - Agriculture and Forestry;
 - Socio-economic Impacts;
 - Public Participation;
 - Property;
 - Electrical Requirements;
 - Indigenous Knowledge and Cultural Beliefs;
 - Proposed Infrastructure;
 - Existing Infrastructure;
 - Planning;
 - Waste Management; and
 - Operation of the Scheme.
 - **Comments received during the review of the Final Scoping Reports -**
 - Alternatives;
 - Access;
 - Agriculture;
 - Terrestrial Ecology;

- Socio-economic Impacts;
 - Climate;
 - Water Resource Management; and
 - Water Use and Supply.
- **Comments received during the EIA Phase** (prior to lodging of draft EIA Report in public domain) -
 - Socio-economic Impacts;
 - Climate;
 - Terrestrial Ecology;
 - Quarries and Borrow Pits;
 - Hydropower;
 - Construction;
 - Water Resource Management; and
 - General.
- **Comments received during the review of the Draft EIA Reports** -
 - Alternatives;
 - Terrestrial Ecology;
 - Water Resource Management;
 - Freshwater and Estuarine Ecology;
 - Sediment and Sand Budget;
 - Water Use and Supply;
 - Groundwater;
 - Proposed Infrastructure;
 - Existing Infrastructure;
 - Traffic, Road Network and Access;
 - Agriculture and Forestry;
 - Socio-economic Impacts;
 - Climate;
 - Quarries and Borrow Pits;
 - Hydropower;
 - Planning;
 - Public Participation; and
 - General.

2 COMMENTS AND RESPONSES – PROJECT ACCOUNCEMENT PHASE

2.1 Alternatives

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Fax) – 23 October 2013							
1.	To be addressed in the EIA for the proposed project: <ul style="list-style-type: none"> Proximity to the three residences on The Mynde Farm. One proposal for the Water Treatment Plant is situated directly in front of these residences the other proposals are to the east of us and one of the residences looks on to those sights. 	L. Antel (Harry Antel Family Trust)				✓	<p>Various specialist studies will be undertaken during the EIA phase to assess the impacts of <i>inter alia</i> the proposed Water Treatment Works (WTW).</p> <p>The original locations for the proposed WTW were based on technical considerations (e.g. topography), within the context of the overall uMWP-1. As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site is also afforded some screening from the surrounding forestry plantation. This will be evaluated further.</p>
Source: Meeting at Baynesfield Club – 23 October 2013							
2.	Has the Shongweni Dam been considered as an option?	R. Gevers	✓				N. Ward (DWS): The Shongweni Dam is not a viable option as it is not linked to a WTW.
Source: Meeting at Baynesfield Club – 23 October 2013							
3.	Objected to all the WTW sites in the Baynesfield area.	E. Lewis				✓	DH: The best practicable environmental option for the WTW will be identified during the EIA.
Source: Meeting at Baynesfield Club – 23 October 2013							
4.	What are the issues with the WTW site that is situated on the Crookes Farm? The best option for Baynesfield is Option 3 and the worst is Option 1, which the local community will all object to.	M. van Deventer (Baynesfield Estate)				✓	<p>AD: The WTW sites in the Baynesfield area are preferred from a technical and topographical perspective.</p> <p>DH: The preferred alternative site for the WTW will need to be evaluated through a comparative analysis in the EIA.</p> <p><i>Subsequent discussion in Potable Water Scoping Report regarding the WTW site on Crookes Farm: Another WTW site was identified during the Feasibility Study, which is situated in a sugar plantation closer to Umlaas Road in the north-eastern part of the</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<i>study area, on Portion 6 of the Farm Crookes 15723. This site was later discarded primarily due to the substantial cut and fill required for the site and it was thus not considered further for the purposes of the EIA.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
5.	Large dams have significant impacts on rivers. The uMkhomazi River is one of the last free flowing rivers in KZN. All possible alternatives must be considered before deciding to build a dam. Made reference to report by Kader Asmal. Excessive water losses also need to be managed.	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓	✓	<p>KB: Explained the detailed investigations that accompany the planning of a transfer scheme. In the early 90's DWA already conducted various studies on the water resources to explore the options for supplying water to the Mgeni system. Copies of these reports are available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/default.aspx). The Mooi-Mgeni Transfer Scheme: Phase 2, which includes the Spring Grove Dam, was identified as an earlier intervention to fulfil the interim water requirements of the Mgeni system. Other options to satisfy the water demands, such as desalinisation, are also being investigated.</p> <p>DH: The Scoping Report will include a section on the previous investigations that were undertaken which lead to the eventual identification of the transfer scheme.</p>
Source: Meeting at Baynesfield Club – 23 October 2013							
6.	Questioned the need for the dam if the impact to the population from HIV/Aids is taken into consideration.	T. Tedder (Richmond Fire Protection Association)	✓	✓	✓	✓	KB: Water demand calculations consider all necessary factors.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
7.	Water demand would improve if damaged pipes are repaired and water wastage is curbed.	B. Crookes	✓	✓	✓	✓	KB: This is also a concern to DWA. The intention is to balance the demand and supply through appropriate strategies. The building of a dam is a 10 -20 year process and serves as a long-term solution. Smithfield Dam was already identified in the 90's but Spring Grove Dam was implemented sooner to supply the interim water requirements of the Mgeni system. Interventions are underway to deal with water that is unaccounted for.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
8.	During the planning of the Eskom power line that traverses the area many local landowners became	B. Crookes				✓	DH: Initially, two alternative sites were identified. As part of the refinement of the locational options for the WTW, and in

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	involved in identifying alternative alignments to the line. However, these alternatives were never considered further. Expressed a lack of faith in the selection of appropriate alternatives due to this prior experience.						<p>acknowledgment of impacts associated with this facility, an additional option was identified. This option is situated in an area on the Baynesfield Estate that was deemed to be less obtrusive. The site is also afforded some screening from the surrounding forestry plantation. The alternative sites for the WTW will need to be evaluated further.</p> <p><i>Refer to response to no. 4 regarding the WTW Option on Crookes Farm that was subsequently discarded.</i></p>
Source: Correspondence – 09 November 2013							
9.	<p>1. We are concerned that the plans to build the Smithfield Dam on the uMkomaas River is in contradiction of the recommendations of the 2004 SA Substantive Report On Dams as this is one of the last free flowing rivers in KZN.</p> <ul style="list-style-type: none"> Please explain why this recommendation is being ignored <p>2. Your BID states that: <i>Pre-feasibility investigations indicated that uMWP,...is the scheme most likely to fulfil this requirement.</i></p> <p>We note that as per the following points in the SA substantive report on dams:</p> <ul style="list-style-type: none"> page 17: <i>It is also accepted that construction of dams is just one option of many to be considered in water and energy planning processes. The range of options includes water and energy demand management, alternative sources of energy, and integrated catchment management.</i> Page 29: B 2.6.10 (15).to partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution” Page 39: B3.6.3the studies for these alternatives should 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>Various options to meeting the project's objectives were considered during previous studies, which eventually lead to the identification of alternatives to be investigated as part of the Feasibility Study. These studies were done at pre-feasibility and feasibility levels and included environmental impacts, socio-economic impacts, capital cost and operational costs.</p> <p>The <i>Mgeni River System Analysis Study</i> carried out between 1991 and 1994 identified the uMkhomazi River as a potentially viable source of water for augmentation of the Mgeni System. The subsequent <i>Mkomazi-Mgeni Transfer Scheme Pre-Feasibility Study</i> included an investigation of augmentation schemes on the uMkhomazi River preceded by scheme identification and reconnaissance investigations. The initial eight schemes that were identified were refined based on technical, environmental and economic factors. The Pre-feasibility Study recommended that the Smithfield Scheme be taken forward to the next phase of investigation in a detailed Feasibility Study.</p> <p>In terms of project alternatives, the Scoping Report will include a section that is dedicated to explaining the various screened options that were considered to increase the water resource (apart from a transfer scheme), which is referenced to the <i>Water Reconciliation Strategy for the KZN Coastal Metropolitan Areas</i>. This includes desalination, use of treated effluent, use of groundwater, etc.</p> <p>The feasible options will be considered in the EIA phase through an impact prediction, where the potential positive and adverse effects of the project will be examined further. The EIA phase will</p>

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p><i>be undertaken by experts in each of the option fields.... These studies should then be subjected to external review to eliminate the suspicion that there may be inherent bias in the analysis and the outcomes. Stakeholders should participate in identifying the terms of reference for consultants and in reviewing the study methodology and outputs.</i></p> <ul style="list-style-type: none"> B 3.6.3 <i>Where several alternatives are under consideration, the studies for these alternatives should be undertaken by experts in each of the option fields, to the same level of detail. These studies should then be subjected to external review to eliminate the suspicion that there may be inherent bias in the analysis and the outcomes. Stakeholders should participate in identifying the terms of reference for consultants and in reviewing the study methodology and outputs</i> <p>As we were informed at the Baynesfield Public meeting that this is a feasibility study into the scheme, we thus request the pre-feasibility studies that have been conducted as per the recommendations above in order to indicate to IAP's the evidence that all other options have been investigated, as well as reasons for their elimination.</p> <p>These should include all the options available that are listed in Annexure C of the SA substantive report on dams.</p> <p>This will assist IAP's to make an informed decision on the feasibility of this scheme.</p>						<p>include a detailed comparative analysis of the project's feasible alternatives that emanate from the Scoping exercise, which will include environmental (with specialist input) and technical evaluations. This will ultimately result in the selection of a Best Practicable Environmental Option (BPEO).</p> <p>Pertinent studies that lead to the identification of the current project proposal (uMWP-1) are contained on the following website: http://www.dwaf.gov.za/Projects/uMkhomazi/documents.aspx.</p> <p><i>When dealing with water resources- analyzing alternative resource development options one need to take the following into consideration:</i></p> <ul style="list-style-type: none"> <i>"Economy of scale" The Mgeni systems demand is currently growing at 1.5%. The system yields about 400 million m³/annum. The additional water requirement therefore is about 6 million m³/annum. It takes about 10 to 15 years to implement a Mega project in addition to this there are limits to what solutions such as re-use can yield.</i> <i>"Practicalities" the current distribution system has not been design to distribute reused water to factories nor has it been developed to distribute water from desalinated water. When one undertakes an analysis of these options these facts must be taken into account.</i> <p><i>There is an instruction from Treasury prohibiting PSP and therefore the public domain to take part in the drafting of ToR's (this is good practise not to allow individuals or organizations that can financially benefit from studies to manipulate things in their favour).</i></p>
Source: Correspondence – 18 November 2013							
10.	The proposed activities are presented as <i>fait accompli</i> which has negated the value of the EIA process in assessing alternatives to each component to determine the option best suited to achieve the project objectives. Coastwatch places on record its	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p><i>Refer to response provided for no.9 regarding alternatives.</i></p> <p>The Background Information Document (BID), which is referred to in the comments received, only focuses on the infrastructure alternatives. Due to its purpose, it only provides a succinct</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>deep concern in this regard.</p> <p>From the documentation Coastwatch is unable to determine how the proposal – the construction of a large instream dam (plus ancillary instream dams) - was identified as the preferred option. The documentation is silent on the manner in which this was undertaken, Coastwatch expecting a transparent and participatory process which ensured that human, social, environmental, technical and financial considerations were given equal weight in the final decision.</p> <p>Alternatives Coastwatch is of the opinion that given the costs projected for the proposed development it is imperative that more sustainable alternatives are considered. Coastwatch strongly urges that the provision of offstream storage is urgently investigated.</p> <p>This method of assuring adequate supplies of raw water is increasingly being investigated and implemented, especially when there are unwanted negative impacts from conventional solutions.</p> <p>For example the negative downstream effects (especially on the estuary) of a conventional dam on the Peace River in the USA were obviated by utilising an offstream reservoir.</p> <p><i>The harvest of sustainable percentages of seasonal river flows in southwest Florida offers a viable and important alternative water supply option for public drinking water and other needs. Effective use of this resource requires large volume reservoirs in which to store seasonally available resources, providing the reliability needed for public water supplies without over harvesting, which could damage the estuaries.</i></p> <p>Advantages of offstream water storage Coastwatch believes there are several potential</p>					<p>overview of the project for which approval was applied for in terms of the National Environmental Management Act (Act No. 107 of 1998).</p> <p><i>Water Conservation and Demand Management as alternative compare to the construction of a dam: To improve WC/DM (reduce water losses) it is possible to design state of the art distribution systems with many redundancies. One should just remember that this is associated with exorbitant costs. A good engineering solution will always take into account or have a balance between capital expense and operational expense. Therefore for distribution systems there will always be operational cost and unfortunately it ends up as water losses. To spend large sums of money on state of the art infrastructure will take money away from other critical needed areas for example education, social, health etc. sectors.</i></p> <p><i>The average water loss (using international standards) due to old distribution systems or “correctly designed infrastructure” is about 20%. What complicates the understanding of this issue, in SA everything is lumped together under unaccounted water and this adds up to about 36%. Unaccounted water includes more than losses for example meters that do not read correctly, in this case (wrong metering) it is water that cannot be re-allocated once sorted out because people are actually using it.</i></p> <p><i>DWA actively promotes more efficient use of water and in the Mgeni System Municipalities responded by allocating additional budget to improve WC/DM. Even if the WC/DM improves the long term water requirements (about 200 million m³/a) will not be met.</i></p> <p><i>An off-channel storage (OCS) dam typically yields about 15 million m³/annum in KZN (one will need to construct 1 OCS dam every 2.5 years to supply adequate water) and they costs about R800 million per dam. The proposed Smithfield Dam will yield approximately 200 million m³/annum and cost about R2.5 billion (13 times more water but costing only 3 times more than OCS). In addition to this, OCS is a solution that works for a specific requirement. It often needs to be close to the demand centre and that dam type is usually recommended when small volumes are required during short periods, typically during low flow months in</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>advantages to using an offstream storage solution when compared to instream impoundment. These include</p> <ol style="list-style-type: none"> 1. More natural flow regime in the river, which is important for the health of the river; 2. Closer to “natural” ecological health of the river, which is important for those dependent on the river for drinking water; 3. Reduced impediment to species migration; 4. Better estuarine health, which is important in the light of the estuary’s ‘nursery’ status; 5. Highly reduced silt load in the reservoir, which is important when assessing its viable/useful life; 6. More assured sand delivery into the marine environment, which is important for the replenishment of the beaches to the north of the uMkhomazi. <p>Conclusion The environmental and long term cost of the proposed dam at Smithfield with the associated tunnels, balancing dams and other infrastructure, as presented at the public meeting are too high. The same outcome (the assured supply of water) can be achieved using a technique that is less environmentally damaging and has a useful life-span that is longer by orders of magnitude.</p> <p>While evaluation of alternatives from a cost perspective may be beyond the scope of the EIA process, from an environmental perspective comparisons must be made between the merits of instream dams vs offstream reservoirs. This evaluation/comparison is being denied in the EIA process currently underway for the uMkhomazi Water Scheme. New challenges have emerged, and while many changes have occurred in the water sector new thinking and innovation is required.</p> <p>Resource management With water security paramount to our future</p>					<p><i>the winter. The Mgeni River is currently fully developed; this implies that even if an OCS dam or any other dam type is constructed in that river it will not fill up. The cost of water will be very expensive per m³ for the construction of a very large or many OCS dams. To fill OCS Dams one needs long expensive canals or huge amount of pumping (with associated environmental impacts - burning bundles of coal and creating global warming and air pollution) to fill them, this increases the operational cost for this dam type. Finally, suitable dam sites are nor regularly available (difficult to find) for OCS dams. The estimate water requirement up to about 2044 is about 200 million m³/a or 600 Mega l/day; there is an applicable saying in English “horses for courses” that might clarify the matter.</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Coastwatch strongly urges ongoing assessment and investigation of parallel and complementary interventions to improve individual options or provide a mix of options to respond to the need to manage our water resources in a sustainable manner. The following, for example –</p> <ul style="list-style-type: none"> • Water Re-use including closed system recycling, • Mandatory optimal efficiency at industry level and awareness of responsible water use and water management at domestic level, • Industrial scale rainwater harvesting, • Addressing preventable water losses (according to the Water Research Commission water losses for urban supply systems were at 36.8% over the past six years, equal to 1.58-billion cubic metres a year or about R11-billion). 						

2.2 Terrestrial Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence – 18 October 2013							
11.	<p>Please can you register BirdLife South Africa as an I&AP. Please include the following names and emails on the list: Hanneline Smit-Robinson, Daniel Marnewick, and Nicholas Theron.</p> <p>I would also appreciate if you could please send through the relevant shapefiles so that we can get a better idea of what may be affected. This is an area of avian sensitivity especially due to the presence of Blue Swallow. The last stronghold of the species in SA is in this area and there are only approximately 30 pairs remaining.</p>	N. Theron (Birdlife SA)		✓	✓	✓	<p>BirdLife SA registered as an I&AP. I&AP database updated accordingly.</p> <p>In acknowledging the sensitivity of the receiving environment in terms of potential Blue Swallows and cranes (amongst others), a dedicated Avifauna Study was already initiated in the Scoping phase.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 23 October 2013							
12.	Noted the possible occurrence of blue swallows in the project area. Will these species be adversely affected by the development?	I. Little (EWT)	✓	✓	✓	✓	DH: We have engaged with Ezemvelo KZN Wildlife and they have also highlighted this as a concern. An avifauna specialist will need to assess this matter during the EIA. <i>In acknowledging the sensitivity of the receiving environment in terms of potential Blue Swallows and cranes (amongst others), a dedicated Avifauna Study was already initiated in the Scoping phase.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
13.	Will offsets be considered?	I. Little (EWT)	✓	✓	✓		DH: The EIA will consider the need for offsets further, following the completion of the relevant specialist studies. <i>Refer to response provided for no. 548 regarding biodiversity offsets.</i>
Source: Correspondence (completed Reply Form) – 23 October 2013							
14.	Impact on Blue Swallow population. Crowned Crane populations feed (breed) in the area of the treatment plan proposed.	A. Carpenter (The Baynesfield Estate Lodge)		✓	✓	✓	<i>Refer to response provided for no. 11 regarding sensitive avifauna.</i>
Source: Correspondence (completed Reply Form) – 23 October 2013							
15.	Blue Swallow population.	L. Carpenter (Harry Antel Family Trust)		✓	✓	✓	<i>Refer to response provided for no. 11 regarding sensitive avifauna.</i>
Source: Correspondence (completed Reply Form) – 23 October 2013							
16.	Habitat for Oribi, Blue Swallow and Crowned Crane.	L. Antel (Harry Antel Family Trust)		✓	✓	✓	<i>Refer to response provided for no. 11 regarding sensitive avifauna.</i> A Terrestrial Ecological Study will be conducted in the EIA phase to assess amongst others the impacts to Oribi.
Source: Correspondence (Fax) – 23 October 2013							
17.	To be addressed in the EIA for the proposed project: • Blue Swallow, Oribi and Crowned Crane habitat may be affected.	L. Antel (Harry Antel Family Trust)		✓	✓	✓	<i>Refer to the following responses:</i> • No. 11 - sensitive avifauna; • No. 16 - impacts to Oribi.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 23 October 2013							
18.	Blue swallow population.	V. Antel (The Mynde Farm)				✓	Refer to response provided for no. 11 regarding sensitive avifauna.
Source: Correspondence – 25 October 2013							
19.	<p>The Department of Agriculture, Forestry and Fisheries (DAFF) appreciates the opportunity given to review and comment on the Background Information Document.</p> <p>With regards to the document received on the 17th of October 2013, flora study will be undertaken on the proposed site and will be incorporated in the Environmental Impact Report (EIR). The study will assist to determine the impact that the proposed activity may have on the indigenous trees in a natural forest and/or protected trees under the National Forest Act (Act No. 84 of 1998). Therefore the Department will further comment upon the receipt of the EIR.</p> <p>The letter does not exempt you from considering other environmental legislation.</p>	N. Sontangane (Department of Agriculture, Forestry and Fisheries)	✓	✓	✓	✓	A Terrestrial Ecological Study will be conducted in the EIA phase. Impacts to flora, with a specific emphasis on indigenous trees in a natural forest and/or protected trees, will be assessed and mitigation measures will be proposed (as required).
Source: Correspondence (completed Reply Form) – 11 November 2013							
20.	Triple line of mature fir trees along southern (road side) boundary.	G. Calmeyer				✓	Where possible, sensitive and valued environmental features to be avoided. To be investigated further.
Source: Correspondence (completed Reply Form) – 11 November 2013							
21.	<p>WATER TREATMENT PLANTS:</p> <p>In addition, the valley is host to the endangered Oribi, the endangered Grey Crowned Crane, Genet, Serval, Jackal, Duiker etc. not to mention the existence of the critically endangered Blue Swallow in the vicinity. In short, it is a thriving wildlife refuge which will be greatly impacted by the erection of a 21ha Treatment Plant.</p>	A. Carpenter (The Baynesfield Estate Lodge)				✓	<p>Various specialist studies will be undertaken during the EIA phase to assess the impacts of <i>inter alia</i> the proposed WTW. Within the context of these comments, some of the planned specialist studies include the following:</p> <ul style="list-style-type: none"> • Terrestrial Ecological Study; and • Avifauna Study. <p>As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							attempted to avoid sensitive ecosystems (amongst others) and is located in a forestry plantation.
Source: Correspondence (completed Reply Form) – 13 November 2013							
22.	<p>I am also very concerned with the fact that we are home to crowned cranes and the blue swallows, I would not like them to be affected in any way whatsoever.</p> <p>Even though we are not farmers, please take into serious consideration the effect this project will have on our environment and our animals.</p>	R. Norton (The Mynde Farm)		✓	✓	✓	<i>Refer to response provided for no.11 regarding sensitive avifauna.</i>
Source: Correspondence (completed Reply Form) – 15 November 2013							
23.	<p>WATER TREATMENT PLANTS: In addition, the valley has strived to restore a place of refuge and safety to many endangered fauna such as the Oribi, the endangered Grey Crowned Crane, Genet, Serval, Jackal, Duiker etc. not to mention the existence of the critically endangered Blue Swallow in the vicinity. These animals will be greatly impacted by the erection of a 21ha Treatment Plant.</p>	T. Antel (The Mynde Farm)		✓	✓	✓	<i>Refer to response provided for no. 48 regarding the investigation of impacts associated with the WTW.</i>

2.3 Freshwater and Estuarine Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 16 October 2014							
24.	Estuarine reserve.	W.M. Pfaff	✓	✓	✓	✓	<p>A study was undertaken during the Pre-feasibility Study to determine the Estuarine Freshwater Requirements of the uMkhomazi Estuary.</p> <p>An Estuarine Study will be undertaken in the EIA phase to determine the impacts to the uMkhomazi Estuary.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							Water released from the proposed Smithfield Dam will need to satisfy the Ecological Water Requirements of the uMkhomazi Estuary.
Source: Correspondence (completed Reply Form) – 17 October 2013							
25.	How is the scheme to affect the Umlaas River that runs through the area?	Q. Khumalo (Rapid Dawn 1064 CC)				✓	Refer to response provided for no. 27 regarding the impacts of the project to the uMkhomazi River.
Source: Correspondence – 18 October 2013							
26.	<p>Please could I request that WWF-SA is registered as an Interested and Affected Party for the proposed uMkhomazi Water Project, Phase 1.</p> <p>We have a Freshwater Programme within WWF that is interested in the impacts of bulk water infrastructure on catchment management and health.</p> <p>WWF is also a partner of the UEIP (Umgeni Ecological Infrastructure Partnership) which has included the Mkhomazi catchments linked to the Smithfield Dam within its area of focus due to the water supply links into the uMngeni Catchment.</p>	S. Viljoen (WWF)	✓	✓	✓		WWF-SA registered as an I&AP. Comments noted. WWF to be kept informed as the EIA process unfolds.
Source: Correspondence (18 November 2013)							
27.	<p>Introduction</p> <p>Coastwatch fully appreciates the pressing need to secure a supply of potable water for the densely populated and economically active 'N3 corridor' while also providing for the water needs of the rest of Water Management Area and is concerned that our water management regime should be as sound and equitable as possible. However we have grave misgivings about this proposal and the potential impacts, many of which will be irreversible.</p> <p>With worldwide recognition that the ecosystem impacts of dams are more negative than positive Coastwatch believes that a comprehensive options assessment is required to give confidence that the proposed instream dams are indeed the option most</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>During the EIA phase the impacts of the proposed project will be assessed in terms of the "resource quality", which is defined in the National Water Act (Act No. 36 of 1998) as the following:</p> <ul style="list-style-type: none"> Quantity, pattern, timing, water level and assurance of in-stream flow (refer to response provided for no. 9 & 10 regarding alternatives); Water quality, including physical, chemical and biological characteristics of the water; Character and condition of the in-stream and riparian habitat; and Characteristics, condition and distribution of the aquatic biota. <p>The findings from the comprehensive Reserve determination, which formed part of the Mzimkhulu River Catchment Water Resources Study, will be incorporated into the EIA phase. The</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>suites to sustainably supplying the required water. The focus must shift from mitigation and compensation to make avoidance and minimisation of social and environmental impacts fundamental criteria guiding the options assessment.</p> <p>The course of the uMkhomazi River is largely undisturbed apart from a weir (Shozi's) and the Goodenough Barrage. As a result the river's health is "Natural" to "Good" and it is regarded as providing reference sites against which to assess the health of other rivers. The proposal now to build a major dam on the river therefore has great environmental and ecological implications, not only for this river and the ecological goods and service that it supplies, but also for the entire region.</p> <p>Environmental concerns</p> <p>The most recent assessment of the health of the uMkhomazi River is that in the report by Groundtruth prepared in 2006 (<i>op. cit.</i>). In this report three sections of the river are assessed. In summary the (then) Present <i>Health Status rating ranged from "Natural" in the upper reaches to "Good" in the lower sections. The assessment came to the conclusion that -</i></p> <p><i>Within the context of the city and the local community a very important resource providing many goods and services as well as a baseline as to what un-impacted rivers could/should look like. There are very few large coastal rivers left in the country in as good condition as ... the lower Mkomaas (op. cit.: 38).</i></p> <p>The recommendations made in the Groundtruth report highlight the maintenance of the instream flow; the rehabilitation of the damage to the riparian zone, and the disruption of the functioning of the estuary by uncontrolled sand mining (<i>op. cit.: 37ff</i>).</p> <p>Coastwatch would also expect the project motivation to include comprehensive, independent analyses as</p>					<p>outlet works of Smithfield Dam will be designed to fulfil the environmental requirements in terms of the Ecological Reserve.</p> <p>Amongst others, the Ezemvelo KZN Aquatic Biodiversity Plan and Freshwater Biodiversity Priorities, as well as the DWA River Health Programme results, will be further scrutinised by the relevant specialists.</p> <p><i>Refer to responses provided for no. 9 and 10 regarding alternatives.</i></p> <p><i>Feedback from DWS: Refer to all Socio-economic Studies. It will not be feasible (due to financial and HR constraints) to do studies on all dams and their performance. This is not a reasonable request.</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>to how our existing dams have performed over time and whether we are getting a fair return for the investment, when taking into consideration the ecological impacts, contributions to GHGs, sand budgets etc.</p> <p>Resource management In addition to the security of water supply, environmental degradation, and pollution of resources need to be addressed with investment made to improving the catchment with work undertaken with partners in the area and money assigned annually for erosion and pollution prevention, invasive alien plant control and water resource rehabilitation/restoration work for the life of the system. This must be in the built infrastructure's Environmental Management Programme and monitored with annual reports submitted to the catchment I&APs to report on progress monitored by the water quality in the dam and water courses feeding the system.</p>						

2.4 Traffic, Road Network and Access

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 16 October 2013							
28.	<p>On Main Roads, no single pole power transmission line, telecommunication line, cable, or pipeline with a diameter of less than 100mm diameter should be placed within a distance of 13 metres of the Road centreline. Nor, in addition, should they be more than 2 meters <u>inside</u> the road reserve boundary.</p> <p>Except at approved crossings of the road reserve, the</p>	M. Schmid (KZN Department of Transport)	✓	✓	✓	✓	Requirements of KZN Department of Transport noted.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>closest point a pipeline exceeding 100mm in diameter should be at least 17 metres from the centreline of a Main Road, carriageway or ramp. In addition, the closest point a pipeline should be located is at least 2 metres <u>outside</u> of the road reserve boundary.</p> <p>On District Roads and Local Roads, no single pole power transmission line, telecommunication line, cable, or pipeline with a diameter of less than 100mm diameter should be placed within a distance of 8 metres of the Road centreline. Nor, in addition, should be more than 2 meters <u>inside</u> the road reserve boundary.</p> <p>Except at approved crossings of the road reserve, the closest point a pipeline exceeding 100mm in diameter should be at least 12 metres from the centreline of a District Road or Local Road. In addition, the closest point a pipeline should be located is at least 2 metres <u>outside</u> of the road reserve boundary.</p>						
Source: Correspondence (completed Reply Form) – 17 October 2013							
29.	Access of contractors to the properties affected.	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)				✓	Measures for access control during the construction and operational phases will need to be established in consultation with the affected landowners (where relevant), and included in the Environmental Management Programme and it will need to adhere to current legislation of this country.
Source: Correspondence (completed Reply Form) – 18 October 2013							
30.	Access control onto the property. Access to property must be authorised.	P. Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	<i>Refer to response provided for no. 29 regarding access control.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
31.	Do you have any other options for the access roads to the balancing dam? Objection raised to Options 2 and 3 of the access roads.	E. Lewis		✓	✓	✓	HP: Other options will be investigated. Welcomed input from the local community. <i>Refer to response provided for no. 34 regarding access roads.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
32.	What is the purpose of the proposed road to the balancing dam?	A. Carpenter		✓	✓	✓	HP: This road will serve to gain access to the balancing dam during the construction and operational phases of the project. Traffic on this road will subside substantially after construction. <i>Refer to response provided for no. 34 regarding access roads.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
33.	The EIA will need to assess all impacts to roads as well as any access roads that will need to be created.	M. Schmid (KZN DoT)		✓	✓	✓	DH: Confirmed that this would be done as part of the EIA. <i>Refer to response provided for no. 34 regarding access roads.</i>
Source: Correspondence (completed Reply Form) – 23 October 2013							
34.	Impact on the roads due to construction as roads used by farming community.	A. Carpenter (The Baynesfield Estate Lodge)		✓	✓	✓	<i>Refer to response provided for no. 29 regarding access control.</i> Traffic Impact Study to be conducted in the EIA phase to assess <i>inter alia</i> the impacts on the local road networks due to the project. At the public meeting held on 23 October 2013 the initial three options for the access roads to the balancing dams were presented, which are the basis of these comments. Subsequently, additional access roads were identified by the technical team to accommodate the concerns and to try and find more acceptable options. The access roads will be refined during the EIA process to identify the best practicable option. As far as possible, the options for the access roads try to make use of the existing road network in the area. Measures for access and traffic control will need to be implemented during the construction and operational phases, which will be included in the Environmental Management Programme.
Source: Correspondence (completed Reply Form) – 23 October 2013							
35.	Roads being made through a wetland area.	L. Antel (Harry Antel Family Trust)		✓	✓	✓	<i>Refer to response provided for no. 34 regarding access roads.</i> Wetland Assessment and Delineation Study to be undertaken in EIA phase. Suitable mitigation measures to be identified (as required).
36.	To be addressed in the EIA for the proposed project: <ul style="list-style-type: none"> The noise and air pollution of vehicles and traffic in relation to the Mbangweni Dam from the access road proposed. An agreement was 			✓	✓	✓	<i>Refer to response provided for no. 34 regarding access roads.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>reached between the Baynesfield Estate and The Mynde when the dam was first built, whereby the dam and area surrounding it, was declared a quiet conservation area. (No power boating or other motor sports allowed). We have adhered to this agreement, since then even with our cane not being transported past the dam which would have been easier for us. This could adversely affect the eco-tourism of the area and devalue the land.</p> <ul style="list-style-type: none"> Roads. One of the proposed roads to the balancing dam goes right through The Mynde and through a wetland area where we join Baynesfield Estate at our south western boundary, the other goes right past the Mbangweni Camp. The road through the Mynde will also severely diminish our arable, irrigable land. The Mynde is a small farm and cannot afford to lose any arable ground. The first site falls between our two access roads both of which are basically single lane roads which hardly hold up to traffic using it at the moment in the summer months. 						
Source: Correspondence (completed Reply Form) – 23 October 2013							
37.	Access to farm impacted by treatment plant.	V. Antel (The Mynde Farm)				✓	<i>Refer to response provided for no. 29 regarding access control.</i>
Source: Correspondence (completed Reply Form) – 28 October 2013							
38.	Increased traffic – dust, road condition.	M. Lenferna (RA Farming)		✓	✓	✓	<p>Impacts to road conditions will be dealt with as follows:</p> <ul style="list-style-type: none"> A record of the state of the road is to be established prior to commencement of construction. This forms the basis of any claims. Usually only private roads / farming roads are addressed. Intervention based on use of the pre-post photo's as evidence as well as a statement by an engineer as to how the road is affected. The degree to which other traffic may use the road is also taken into consideration. <p>The Environmental Management Programme, which will be</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							developed during the EIA phase, will include best practices to manage dust (e.g. dust suppression, monitoring programme, etc.) during the construction and operational phases.
Source: Correspondence – 05 November 2013							
39.	Balancing Dam – Roads: Option 2 and 3 roads as indicated on your map will be built too close to the farm houses and run right through the farm to the dam site.	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)		✓	✓	✓	Refer to response provided for no. 34 regarding access roads.
40.	Balancing Dam – Access-The farm gate is always closed and only opened for appointments and visitors.			✓	✓	✓	Refer to response provided for no. 29 regarding access control.
41.	Balancing Dam – The current roads, water carrying contours and waterways have been carefully thought out and surveyed to ensure that storm water is channeled off the farm in the most efficient method. It will be difficult to add a new major road through the farms without having to re align the existing roads, contours and waterways.			✓	✓	✓	Refer to response provided for no. 34 regarding access roads.
42.	Balancing Dam – The route of option 2 and 3 will be steep road that climbs up to the top of the hill and descends down a steep hill into the valley, a big problem in the wet season; option 1 is a much flatter road which follows the stream up to the dam site.			✓	✓	✓	Refer to response provided for no. 34 regarding access roads.
Source: Correspondence – 05 November 2013 & Completed Reply Form – 21 October 2013							
43.	Water Treatment Works I am totally against Option 1, 2 and 3 and especially option 1 for the following reasons: <ul style="list-style-type: none"> Constant traffic from construction vehicles and service vehicles in the future. <p>Umlaas road site is a better option because it is already an industrial area and will not have the same problems as the Baynesfield site.</p>	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)				✓	Refer to response provided for no. 34 regarding access roads.
Source: Correspondence (completed Reply Form) – 11 November 2013							
44.	Proposed Roads to Langa BD: Option 1 will impact on the current tourism prevailing	A. Carpenter (The		✓	✓	✓	Refer to response provided for no. 34 regarding access roads.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>at The Baynesfield Estate Lodge of which my business gains an income from, and is responsible for, hosting the school trips to the Lodge.</p> <p>Option 2 passes directly through the housing estate at The Mynde Farm. Such a public thoroughfare will expose the farm livestock and inhabitants to serious security issues as the normal security structures of an urban suburb do not exist here.</p> <p>In addition it is obviously highly undesirable from an aesthetic and safety perspective that a public road cuts straight through and past what is a quiet farmstead with many children in residence. In addition, there is abundant wild game on the farm and Baynesfield Estate in general. Illegal hunting with dogs is widespread in the area and has not yet affected The Mynde's wildlife to a great extent due to its inaccessibility to the general public.</p>	Baynesfield Estate Lodge)					
Source: Correspondence – 13 November 2013							
45.	The road through the Mynde will go directly between the houses and it will be unsafe for construction vehicles to be driving through this area, as there is a playschool operating on the farm with small children not to mention the lack of privacy, dust and noise. This road is totally unacceptable. The road hardly stands up to the traffic on it during summer.	L. Antel (Gateway Farms Properties (Pty) Ltd)			✓		Refer to response provided for no. 34 regarding access roads.
Source: Correspondence (completed Reply Form) – 13 November 2013							
46.	<p>As a resident of the Mynde Farm in the heart of Baynesfield I strongly oppose the construction of the treatment plant in all of the three options. I feel that the security will be a major concern for us as will the excessive traffic, light and noise pollution. The D41 road is our daily road and leads to the farm. I feel our safety and security will be compromised with the extra, outside traffic using this road regularly.</p> <p>I also strongly oppose the access road to the holding dam, which goes right through The Mynde and in</p>	R. Norton (The Mynde Farm)			✓	✓	<p>Measures for access control during the construction and operational phases will need to be established in consultation with the affected landowners (where relevant), and included in the Environmental Management Programme.</p> <p>Refer to the following responses provided:</p> <ul style="list-style-type: none"> No. 34 - access roads; No. 29 - access control; No. 80 - safety and security; and No. 48 - light and noise pollution.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	between our houses. We have small children and animals which play freely on the farm and I am not going to accept that outside heavy duty vehicles will drive straight past my house. We don't even allow our own tractors on that road.						
Source: Correspondence (completed Reply Form) – 15 November 2013							
47.	<p>Proposed Roads to Langa BD:</p> <p>Option 1 will impact on the current tourism prevailing at The Baynesfield Estate Lodge of which school trips are hosted at the Lodge. These trips consist of groups of children of varying ages that, at present, are able to experience farm life at its best, quiet, safe, and traffic free. This would not hold the same appeal nor the quiet environment necessary to host such tours as well as posing risk to the children and a damaging effect on the business at the lodge.</p> <p>Option 2 passes directly through the homestead at The Mynde Farm. Such a public thoroughfare will expose the farm livestock and inhabitants to serious security issues as the normal security structures of an urban suburb do not exist here.</p> <p>In addition it is obviously highly undesirable from an aesthetic and safety perspective that a public road cuts straight through and past what is a quiet farmstead with many children in residence. There is also a playschool that is run on the farm during the week where children are able to meander between the houses of the homestead and surrounds taking in the quiet yet abundant learning opportunities from the animals and flora and fauna living in and around this area of the farm. With a main road running straight through this area these children are at a much higher safety risk, as opposed to the very quiet almost traffic free road that it is currently. This too affects the nature of the schooling opportunity offered which impacts the school as a business entity as it will lose the appeal of the quiet, nurturing, outdoor school it has strived to be.</p>	T. Antel (The Mynde Farm)		✓	✓	✓	<i>Refer to response provided for no. 34 regarding access roads.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	In addition, there is abundant wild game on the farm and the ease of access to this area will certainly create an illegal hunting and security problem for the occupants of the farm and Baynesfield Estate in general. Illegal hunting with dogs is widespread in the area and has yet not affected The Mynde's wildlife to a great extent due to its inaccessibility to the general public.						

2.5 Visual, Air, Noise Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 23 October 2013							
48.	Environmental pollution due to the treatment plant.	A. Carpenter (The Baynesfield Estate Lodge)				✓	<p>As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site is also afforded some screening from the surrounding forestry plantation. The alternative WTW sites will undergo a comparative analysis during the EIA to identify the best practicable environmental option.</p> <p>Various specialist studies will be undertaken during the EIA phase to assess the impacts of <i>inter alia</i> the proposed Water Treatment Works (WTW). Within the context of these comments, some of the planned specialist studies include the following:</p> <ul style="list-style-type: none"> • Visual Impact Assessment; • Social Impact Assessment; and • Socio-economic Impact Assessment. <p>In addition, the noise, light and odour impacts will also be assessed with particular consideration of sensitive receptors.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							The Environmental Management Programme, which will be developed during the EIA phase, will include best practices to manage dust (e.g. dust suppression, monitoring programme, etc.) and noise during the construction and operational phases.
Source: Correspondence (completed Reply Form) – 23 October 2013							
49.	Environmental (noise, light, visual pollution). Loss of sense of place as livelihood from Baynesfield Estate Lodge tourism.	L. Carpenter (Harry Antel Family Trust)		✓	✓	✓	Refer to response provided for no. 48 regarding visual, air and noise impacts.
Source: Correspondence (completed Reply Form) – 23 October 2013							
50.	Aesthetics, noise, light and air pollution.	L. Antel (Harry Antel Family Trust)		✓	✓	✓	Refer to response provided for no. 48 regarding visual, air and noise impacts.
Source: Correspondence (completed Reply Form) – 23 October 2013							
51.	Environmental pollution and destruction of sense of place.	V. Antel (The Mynde Farm)				✓	Refer to response provided for no. 48 regarding visual, air and noise impacts.
Source: Correspondence (Fax) – 23 October 2013							
52.	To be addressed in the EIA for the proposed project: <ul style="list-style-type: none"> The position of the proposed Water Treatment Plant in relation to the houses on the Mynde and Lewis properties with the prevailing wind for noise, air (dust during construction) and light pollution. Additional comments. <ul style="list-style-type: none"> We built our houses specifically where they are, due to the beautiful view of the valley below. The Water Treatment Works will be unsightly and totally spoil this view which has been commented on by everyone who has visited us. We are adamantly prepared to oppose the development of the Water purification Works on the proposed sites. 	L. Antel (Harry Antel Family Trust)				✓	Refer to response provided for no. 48 regarding visual, air and noise impacts.
Source: Meeting at Baynesfield Club – 23 October 2013							
53.	The Mynde Farm overlooks the site for the proposed WTW. The plant will impact the visual quality of the	A. Carpenter				✓	DH: A specialist study will be conducted as part of the EIA to determine the visual impacts associated with the project

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	area. What noise levels will be generated at the WTW?						infrastructure. Noise levels will also be assessed as part of the EIA in relation to sensitive receptors in the area. <i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
54.	Raised an objection to Option 3 for the WTW due to its visual impacts.	P. Rolland				✓	DH: Noted. The preliminary list of specialist studies for the EIA phase includes a Visual Impact Assessment. <i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
55.	Is it possible to blend the WTW into the environment?	A. Carpenter				✓	GL: Need to explore architectural designs to limit the visual impacts. <i>The WTW Options 1 and 2 are potentially afforded some screening by the surrounding timber plantations. To be assessed as part of Visual Impact Assessment.</i> <i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
56.	What will the height be of the highest structure at the WTW?	A. Carpenter				✓	GL: Approximately 6 metres. <i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
57.	Would there be a high fence around the WTW?	T. Norton				✓	LA: Yes. All of Umgeni Water's WTWs are secured with a fence. GL: Trees could also be planted around the fence to provide some screening of the WTW. DH: As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site is also afforded some screening from the surrounding forestry

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							plantation.
Source: Meeting at Baynesfield Club – 23 October 2013							
58.	Will the WTW cause light pollution, as if the case at the Midmar WTW with its spotlights?	P.S. Rees (Duzi Umgeni Conservation Trust)				✓	DH: Light pollution to be investigated during the EIA. <i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Correspondence (completed Reply Form) – 29 October 2013							
59.	The proposed site (WTW) is 300m from my homes and buildings. The noise and dust with the tip trucks working 24 hours to move the sludge etc. will not be conducive to our well-being.	B. Crookes (JL Crookes & Son)				✓	<i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Correspondence (completed Reply Form) – 04 November 2014							
60.	The visual aspect is all important with the proximity of the new Big 5 Mayibuye Game Reserve and its overseas tourist potential.	E. Donaldson (Mkhambathini Local Municipality)				✓	Visual Impact Assessment to be conducted during the EIA phase. Impacts to Big 5 Mayibuye Game Reserve to be investigated during the EIA.
Source: Correspondence – 05 November 2013							
61.	Balancing Dam – Dust- (All seasons) is a major problem as the prevailing wind is NE. Noise-This area is a quiet agriculture area. There will be constant noise from construction lorries and service vehicles not only in the building stage but also forever more.	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)		✓	✓	✓	<i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
62.	Balancing Dam – Dam site: Aesthetics of the dam. - The dam site area is a beautiful natural area that is untouched by agriculture and building structures. I request that all building and power lines are kept underground to ensure the continued beauty of the area and no lights to shine at night.			✓	✓	✓	Visual Impact Assessment to be conducted during the EIA phase. Suggestions noted.
Source: Correspondence – 05 November 2013 & Completed Reply Form – 21 October 2013							
63.	Water Treatment Works I am totally against Option 1, 2 and 3 and especially	Eric Lewis (Lewis Farming,				✓	<i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>option 1 for the following reasons:</p> <ul style="list-style-type: none"> • Light pollution • Dust • Future expansion • This is a quiet farming area which will be changed forever by an industrial area in the middle of an agriculture area. • Aesthetics – My house was built so that the view would be over the Baynesfield valley with no industrial type building in sight. The option 1 WTW will be in the center of my view. • Power lines – more power lines to add to the many. <p>Umlaas road site is a better option because it is already an industrial area and will not have the same problems as the Baynesfield site.</p>	Kyalami Farm and Eric Lewis Family Trust)					
Source: Correspondence (completed Reply Form) – 11 November 2013							
64.	<p>WATER TREATMENT PLANTS: The establishment of WTP in the valley will forever destroy the sense of place that the area relies on to generate income from eco-tourism and farm trips to The Baynesfield Estate Lodge and Baynesfield Estate itself.</p> <p>The proposed WTP being situated in a valley imposes directly on the senses and will be an inescapable scar on the landscape affecting the surrounding farms, of which The Mynde is one, not only visually but in terms of light, noise and air pollution. The erection of a WTP in the Baynesfield valley makes no sense from an environmental and social perspective to the natural inhabitants when other options exist.</p>	A. Carpenter (The Baynesfield Estate Lodge)				✓	<p>Motivation for the site selection of the options for the proposed Water Treatment Works (WTW) included in the uMWP-1 Potable Water Scoping Report.</p> <p><i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i></p>
Source: Correspondence (completed Reply Form) – 15 November 2013							
65.	<p>WATER TREATMENT PLANTS: The establishment of WTP in the valley will forever destroy the sense of place that the area relies on to generate income from eco-tourism and farm trips to</p>	T. Antel (The Mynde Farm)		✓	✓	✓	<i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>The Baynesfield Estate Lodge and Baynesfield Estate itself.</p> <p>The proposed WTP being situated in a valley imposes directly on the senses and will be an inescapable scar on the landscape affecting the surrounding farms, of which The Mynde is one, not only visually but in terms of light, noise and air pollution. The erection of a WTP in the Baynesfield valley makes no sense from an environmental and social perspective to the natural inhabitants particularly when other options exist.</p>						

2.6 Agriculture and Forestry

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 17 October 2013							
66.	Can the affected land be used for farming purposes in the future?	Q. Khumalo (Rapid Dawn 1064 CC)				✓	<p>The land which is occupied by the servitude will have restricted land use, in order to maintain the integrity of the pipeline and ensure public safety. No permanent or temporary structures will be allowed within the servitude. In addition, no trees, large bushes or deep-rooted plants will be allowed. Non-obtrusive farming practices will be allowed following consultation with Umgeni Water.</p> <p>In the absence of a request from a land-owner the servitude is usually planted back to indigenous grassland.</p>
Source: Correspondence (completed Reply Form) – 18 October 2013							
67.	Loss of timber area under management.	Peter Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	Option 2 for the WTW is located in forestry plantation. Site identified to mitigate impacts associated with other alternatives. Impacts to timber areas to be assessed during the EIA.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence – 05 November 2013 & Completed Reply Form – 21 October 2013							
68.	<p><u>Water Treatment Works</u></p> <p>I am totally against Option 1, 2 and 3 and especially option 1 for the following reasons:</p> <ul style="list-style-type: none"> Wasteful use of prime agriculture land. <p>Umlaas road site is a better option because it is already an industrial area and will not have the same problems as the Baynesfield site.</p>	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)				✓	<p>Motivation for the site selection of the options for the proposed WTW included in the uMWP-1 Potable Water Scoping Report.</p> <p>Various specialist studies will be undertaken during the EIA phase to assess the impacts of the proposed WTW. Within the context of these comments, one of the planned studies includes an Agricultural Potential Study.</p> <p>As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site attempted to avoid cultivated land and is located in a forestry plantation.</p>
Source: Meeting with Impendle Tenant Forum & Neighbouring Community – 22 October 2013							
69.	We are owners of the land where Smithfield Dam will be situated. We have plans for the future use of the land. Will the houses and agricultural areas that are situated on the site be affected?	Z. Madlola	✓	✓			<p>DH: The EIA will assess the impacts to the local community. A Relocation Action Plan will be compiled. People's rights will be protected.</p> <p><i>Refer to response provided for no. 211 regarding the impacts associated with the Smithfield Dam basin.</i></p>
Source: Correspondence (completed Reply Form) – 23 October 2013							
70.	Loss of agricultural / forestry land.	L. Antel (Harry Antel Family Trust)				✓	<i>Refer to response provided for no. 50 regarding impacts to agricultural land.</i>
Source: Correspondence (completed Reply Form) – 23 October 2013							
71.	<ul style="list-style-type: none"> Proposed pipe from W.T.P. to Umlaas Road reservoir crosses my small, intensive veg farms. Will I be compensated for loss of income from construction corridor? Can I continue farming over pipeline post-construction? 	R. Gevers				✓	<p><i>Refer to the following responses provided:</i></p> <ul style="list-style-type: none"> <i>No.68 - impacts to agricultural land; and</i> <i>No. 66 - farming within servitude following construction.</i> <p>Compensation to be made for loss of crops during construction.</p>
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
72.	Can agricultural practices occur within the servitude once the pipeline has been installed?	B. Crookes				✓	LA: The land which is occupied by the servitude will have restricted use in order to maintain the integrity of the pipeline and

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							ensure public safety. Certain farming practices will be allowed following consultation with Umgeni Water.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
73.	<p>Are all of the WTW optional sites located on agricultural land? Why is it not possible to avoid agricultural land?</p> <p>Are you implying that it is preferred not to pump the water because it is expensive but it is acceptable for us to lose our land? Suggested that the costs of pumping the water be compared to the loss of the agricultural land.</p>	B. Crookes				✓	<p>DH: Option 2 is situated on land used for timber production.</p> <p>AD: Due to the gradient the water will need to be pumped if the WTW site is moved.</p> <p>LA: All possible sites have been identified. Agriculture is the dominant land use from Baynesfield to Umlaas Road.</p> <p>AD: The scope is to identify the best option for a gravity line.</p> <p>DH: The strategic need for the project needs to be taken into consideration. Included in the presentation that a socio-economic study will be undertaken as part of the EIA.</p> <p>LA: The Department of Agriculture will be involved in the EIA process and will scrutinise the alternatives against the impacts to agricultural land.</p>
Source: Correspondence (completed Reply Form) – 29 October 2013							
74.	Prime agricultural land. 21 hectares a large chunk of our most prime area on our farm – with ever increasing costs of wages / diesel – cannot afford to lose this area of cane.	B. Crookes (JL Crookes & Son)				✓	<i>Refer to response provided for no. 68 regarding impacts to agricultural land.</i>
Source: Correspondence (completed Reply Form) – 28 October 2013							
75.	Loss in income due to loss in forage.	M. Lenferna (RA Farming)		✓	✓	✓	Compensation to be made for loss of crops during construction.
Source: Correspondence (completed Reply Form) – 11 November 2013							
76.	<p>WATER TREATMENT PLANTS:</p> <p>The proposed Baynesfield locations of the WTP are on highly fertile and productive farming land. With the production of food being a parallel concern to the supply of potable water to the growing population, it makes no sense to impact negatively the food production capacity of the Baynesfield valley for the convenience of a WTP that could be located</p>	A. Carpenter (The Baynesfield Estate Lodge)				✓	<p><i>Refer to the following responses provided:</i></p> <ul style="list-style-type: none"> <i>No.48 - impacts associated with the WTW; and</i> <i>No. 68 - impacts to agricultural land.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	elsewhere on less productive land.						
Source: Correspondence (completed Reply Form) – 15 November 2013							
77.	<p>WATER TREATMENT PLANTS: The proposed Baynesfield locations of the WTP are on highly fertile and productive farming land. With the production of food being a parallel concern to the supply of potable water to the growing population, it makes no sense to impact negatively the food production capacity of the Baynesfield valley for the convenience of a WTP that could be located elsewhere on less productive land.</p>	T. Antel (The Mynde Farm)		✓	✓	✓	Refer to response provided for no. 68 regarding impacts to agricultural land.
Source: Correspondence (completed Reply Form) – 30 January 2014							
78.	<p>We still strongly oppose the positioning of the water treatment plant and welcome your suggested meeting with NCT.</p> <p>Permitted timber land cannot be replaced in the Umlaas River catchment. The land in question is not only prime timber land but is also suitable as prime agricultural land. I feel there are better options available and have suggested these spots on the attached map. These proposals will be far less disruptive in the construction stage and future stages to forestry and agricultural operations.</p> <p>NCT lease the said timber area from Baynesfield Estate and as lessee's of the area which has attracted large costs over the years, forecast have been done without taking the loss of timber areas into consideration. This would also have an effect our lease agreement with Baynesfield Estate.</p> <p>Forestry land is already under threat from many other different aspects such as power lines, environmental organizations, water projects, roads etc. any loss of timber land is a further loss to the industry.</p> <p>Consideration also need to be given to Forestry</p>	Peter Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	<p>Refer to response provided to no. 68 regarding impacts to agricultural land.</p> <p>NCT Forestry Co-operative Limited suggested alternative sites for the proposed WTW in order to prevent any impacts to the timber plantation. These suggested sites were assessed and the following feedback was received from the engineering team:</p> <ul style="list-style-type: none"> ❖ The old bull station is not viable as its elevation of 840 msl is much lower than the required 872 msl. ❖ Atherstone Farm requires a considerable volume of fill across the site and access is not ideal. Almost the entire site will require imported fill and is therefore not considered viable. ❖ The "Open Area" to the north-east is unsuitable as the terrain is too steep, however the adjacent farmland has a suitable elevation and is accessible via district roads. It may however result in a 2.2 km increase in pipe length. This site was adopted as WTW Option 2.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>operations that will coincide with the construction phase wrt traffic and peoples safety. The main access road is in common with option 1 to Langa dam.</p> <p>Whilst we understand the need for a sustainable water supply, the last resort should be the removal of productive timber or agricultural land. The proposed attachment shows unproductive lands, with easier access from the main road.</p>						
Source: Correspondence (completed Reply Form) – 26 June 2014							
79.	<ul style="list-style-type: none"> We will be losing arable land at the dam site and water treatment plant. I have mentioned that this is a problem as we already have insufficient land to plant maize for our piggery and will have negative affect on our business. 	M. van Deventer (Baynesfield Estate)	✓	✓	✓	✓	<p>Various specialist studies will be undertaken during the EIA phase to assess the impacts of the proposed project. Within the context of these comments, one of the planned studies includes an Agricultural Potential Study.</p> <p>As part of the refinement of the locational options for the WTW, and in acknowledgment of impacts associated with this facility, an additional option was identified (Option 2). This option is situated in an area that was deemed to be less obtrusive. The site attempted to avoid cultivated land and is located in a forestry plantation.</p>

2.7 Security

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 23 October 2013							
80.	Security concerns – what will be done to mitigate this?	A. Carpenter (The Baynesfield Estate Lodge)		✓	✓	✓	The Environmental Management Programme, which will be developed during the EIA phase, will include best practices to ensure the safety of the local community during the construction and operational phases of the project.
Source: Correspondence (completed Reply Form) – 23 October 2013							
81.	Have a farm - security impacted by treatment plant.	V. Antel (The		✓	✓	✓	<i>Refer to response provided for no. 80 regarding safety and</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
		Mynde Farm)					security.
Source: Correspondence (completed Reply Form) – 23 October 2013							
82.	Security.	L. Carpenter (Harry Antel Family Trust)		✓	✓	✓	Refer to response provided for no. 80 regarding safety and security.
Source: Correspondence (completed Reply Form) – 23 October 2013							
83.	Security	L. Antel (Harry Antel Family Trust)		✓	✓	✓	Refer to response provided for no. 80 regarding safety and security.
Source: Correspondence (Fax) – 23 October 2013							
84.	To be addressed in the EIA for the proposed project: <ul style="list-style-type: none"> Increase of labour for the Treatment Plant, extra labour housing or labour traffic directly below us or to the side of our boundary may compromise our security. 	L. Antel (Harry Antel Family Trust)		✓	✓	✓	Refer to response provided for no. 80 regarding safety and security.
Source: Correspondence (completed Reply Form) – 28 October 2013							
85.	Increase in crime rate – specifically theft and vandalism.	M. Lenferna (RA Farming)		✓	✓	✓	Refer to response provided for no. 80 regarding safety and security.
Source: Correspondence – 05 November 2013							
86.	Balancing Dam – Security- Where ever there is a lot of traffic through a farm there will be a security problem. (Thefts, murder, trespassing, poaching). Security - If the labour is to be housed at the dam site there will be security issues. Poaching of wildlife, fire threat, theft etc. I request that labour is house away from the dam construction site.	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)		✓	✓	✓	Refer to response provided for no. 80 regarding safety and security. Accommodation site for labour to be investigated further. Site selection to consider various criteria, including the security of the surrounding community.
Source: Correspondence – 05 November 2013 & Completed Reply Form – 21 October 2013							
87.	Water Treatment Works I am totally against Option 1, 2 and 3 and especially option 1 for the following reasons: <ul style="list-style-type: none"> During building and possibly after, there will be an increase in security threat 	Eric Lewis (Lewis Farming, Kyalami Farm and Eric Lewis Family Trust)				✓	Refer to response provided for no. 80 regarding safety and security.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Umlaas road site is a better option because it is already an industrial area and will not have the same problems as the Baynesfield site.						

2.8 Socio-economic Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 17 October 2013							
88.	What compensation is to be paid to the landowners?	Q. Khumalo (Rapid Dawn 1064 CC)				✓	<p>Before construction commences, a negotiator from Umgeni Water will engage with the affected landowners to secure servitude rights. Compensation will be market-based.</p> <p>Compensation is also advised by guidelines which are developed by Umgeni Water as well as other government departments (e.g. Department of Agriculture).</p>
Source: Meeting with Impendle Tenant Forum & Neighbouring Community – 22 October 2013							
89.	Please clarify how local community members will be affected?	S. Nkosi	✓	✓			<p>DH: Various specialist studies will be conducted as part of the EIA to identify the impacts to the local community. Various households that are located in the proposed basin of the Smithfield Dam will need to be relocated. The parties will need to be adequately consulted.</p> <p><i>Refer to response provided for no. 211 regarding the impacts associated with the Smithfield Dam basin.</i></p>
Source: Meeting at Baynesfield Club – 23 October 2013							
90.	Where will the labour be housed? Expressed concern over the possible influx of people in the area.	A. Carpenter		✓	✓	✓	<p>DH: Labour accommodation still needs to be confirmed. At Smithfield Dam the labour will more than likely be housed on site.</p> <p>KB: At Spring Grove Dam provision was made for an office where people could raise any queries, such as the availability of accommodation.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p><i>Social Impact Assessment to be undertaken in the EIA phase, which will assess the impacts associated with the influx of people to the area.</i></p> <p><i>Refer to response provided for no. 80 regarding safety and security.</i></p>
Source: Meeting at Baynesfield Club – 23 October 2013							
91.	When will a relocation plan be in place?	K. Magudu (DUCT)	✓	✓			<p>DH: We first need to identify all the dwellings that are located in the dam basin that will need to be relocated and then engage with the affected parties. The Relocation Plan will form part of the EIA.</p> <p><i>Refer to response provided for no. 211 regarding the impacts associated with the Smithfield Dam basin.</i></p>
Source: Correspondence (completed Reply Form) – 23 October 2013							
92.	The sense of place would be destroyed due to the treatment plant. This would lead to a significant loss of business at The Baynesfield Estate Lodge situated on the banks of the Mbangweni Dam.	A. Carpenter (The Baynesfield Estate Lodge)		✓	✓	✓	<p><i>Refer to responses provided for:</i></p> <ul style="list-style-type: none"> <i>No. 48 - impacts associated with the WTW;</i> <i>No. 97 - proposed mitigation of impacts to The Baynesfield Lodge.</i>
Source: Correspondence (completed Reply Form) – 24 October 2013							
93.	<ul style="list-style-type: none"> Thank you, this is a good project, that will upgrade the community. It will also create jobs. Best of all, is that the community will have clean water supply. 	I.N. Hlela	✓	✓	✓	✓	<p>The EIA phase will further explore maximising the positive impacts of project, where possible.</p> <p>As part of the feasibility study for the proposed Smithfield Dam, a desktop-level study was carried out to ascertain the following:</p> <ul style="list-style-type: none"> The current water sources being used by the communities surrounding the dam; and The possibility of feasibly supplying these communities from Smithfield Dam in the future. <p>Note that a separate EIA will be conducted for the Smithfield Dam local water supply scheme.</p>
Source: Correspondence (Email) – 13 November 2013							
94.	According to the diagrams of the Proposed Mbangweni Balancing Dam, it would cover part of The Mynde Farm. I assume a procedure exists with	A. Carpenter (The Baynesfield)			✓		<p>You are correct - one of the options for the Balancing Dam encroaches on your property. Compensation would need to be considered for any loss of land associated with the project</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	regards to compensation for lost land if this particular Balancing Dam goes ahead?	Estate Lodge)					footprint. We still need to assess which of the Balancing Dam options are more favourable, which will include an appraisal by the relevant specialists.
Source: Correspondence (Email) – 13 November 2013							
95.	I have just been sent the enlarged maps of the area to be covered by the new dam and would like to know the area of the Mynde that would be covered by the dam as it looks as though a huge area of arable land will be under water. Will we be reimbursed for the land and the loss of income from this area, as this will hugely affect the cash flow on the farm.	L. Antel			✓		<i>Refer to response provided for no. 94.</i>
Source: Correspondence (completed Reply Form) – 14 May 2014							
96.	<p>Kheswa Family is concerned about:</p> <ul style="list-style-type: none"> • Removal; • Graves; and • Compensation. <p>The above concerns and issues to be addressed and strong consultation through all processes.</p>	N. Kheswa	✓	✓	✓	✓	<p><i>Refer to response provided for no. 211 regarding the impacts associated with the Smithfield Dam basin.</i></p> <p>Some of the practices that will be employed with regards to graves include the following:</p> <ul style="list-style-type: none"> • Heritage Impact Assessment to be conducted as part of EIA to identify graves (amongst others); • Compile and implement search, rescue and relocation plan for graves; • For any chance finds, all work will cease in the area affected and the Contractor will immediately inform the Project Manager. A registered heritage specialist must be called to site for inspection. The relevant heritage resource agency (i.e. Amafa aKwaZulu-Natali) must be informed about the finding; • Permits to be obtained in terms of the KZN Heritage Act (Act No. 04 of 2008) if heritage resources are to be impacted on and for the removal of graves; • Exhumation and relocation of graves once families and affected communities have been consulted and permission received for relocation. All cultural practices in terms of removal of graves as requested by family / community to be complied with.
Source: Correspondence (completed Reply Form) – 26 June 2014							
97.	<ul style="list-style-type: none"> • We operate a lodge, a camp for school children and a dam for the paying public. • Our lodge and school camp will also be negatively 	M. van Deventer (Baynesfield Estate)	✓	✓	✓	✓	A Socio-economic Study and Social Impact Assessment will be undertaken as part of the EIA phase, and mitigation measures will need to be identified to manage the impacts to the social and

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>affected during the construction and it will be difficult for us to expand this business during this period.</p> <ul style="list-style-type: none"> I am unhappy that we cannot be given the first opportunity to operate recreational activities and accommodation on the new dam. Worst case scenario is people driving on our road, past our lodge to go to another lodge operated by someone else that we helped set up. This does not sit well with us. We will be making lots of compromises and sacrifices with no gain for us. The only possible gain for us is operating a recreational business on the new dam, which we already have the skills to do. If this cannot happen then we are not on board with this project. We will thus oppose any negative affects inflicted on the Estate if they are not balanced with some benefits to the Estate. 					<p>economic environment.</p> <p>To mitigate the impacts to the tourism and environmental education opportunities that exist at The Baynesfield Estate Lodge, the EIA phase will investigate the possibility of recreating the facilities of the lodge at Baynesfield Dam. During the construction phase the existing facilities at the lodge could be leased to the construction team to ensure continued income from the lodge. After construction these facilities will be left in the same state or better as when construction commenced to allow for the lodge to continue functioning.</p> <p>The National Water Act (Act No. 36 of 1998) makes provision for DWA to explore the recreational use of Government Water Works. A Resource Management Plan (RMP) serves as the tool used by DWA to determine and gazette the sustainable and equitable use and management of the water surface and state-owned land during the operational phase of a dam. Recreational use of the balancing dam will need to be established in consultation with the authorities, stakeholders and I&APs as part of a RMP process prior to the impoundment of the basin. Discussions are underway within DWA to further explore the exclusive use of the balancing dam by Baynesfield Estate.</p>	
Source: Meeting with Amaqadi Community – 24 October 2013							
98.	Please explain the process of relocating the affected households.	S. Ngcobo	✓	✓			<p>DH: A Socio-economic Study and Social Impact Assessment will be undertaken as part of the EIA phase, and mitigation measures will need to be identified to manage the impacts to the social and economic environment.</p> <p>A Relocation Action Plan will need to be developed for the dwellings that will be inundated by the Smithfield Dam.</p>
Source: Meeting with Amaqadi Community – 24 October 2013							
99.	Will the project create job opportunities during and after the construction phase? Will there be any student training provided? Can the Dam be used for recreational purposes?	M. Nzimande	✓	✓			<p>KB: There will be job opportunities available. However, most of the construction workers will be categorised as skilled labour. In the greater context of the project, the water provision will promote economic development in Pietermaritzburg and Durban.</p> <p>DH: The feasibility of recreational use at the dam will need to be explored through a dedicated process to develop a Resource</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>Management Plan. As part of the EIA process, we need to engage with the community and take into consideration their needs.</p> <p><i>The National Water Act (Act No. 36 of 1998) makes provision for DWA to explore the recreational use of Government Water Works. A Resource Management Plan (RMP) serves as the tool used by DWA to determine and gazette the sustainable and equitable use and management of the water surface and state-owned land during the operational phase of a dam. Recreational use of Smithfield Dam will need to be established in consultation with the authorities, stakeholders and I&APs as part of a RMP process prior to the impoundment of the basin.</i></p>
Source: Meeting with Amaqadi Community – 24 October 2013							
100.	The Government speaks of Rural Development. I believe this project is an opportunity for development to take place in this community. We will not fail to act when water is taken from our land to benefit other areas and not us. Noted that a borehole that was created as part of the geotechnical investigations had created a wetland. What will happen to the waste from the tunnel?	Mr Phewa	✓	✓			<p>DH: Borehole to be examined. Spoil material generated from tunnelling would need to be disposed of at sites located at the tunnel inlet, central adit and outlet.</p> <p><i>Refer to response provided for no. 135 regarding water supply to the local community.</i></p>
Source: Meeting with Deepdale Community – 24 October 2013							
101.	Will houses need to be relocated? Will graves be affected?	S. Ngcobo	✓	✓			<p>HP: Impacts to be assessed as part of EIA. Households to be affected will be relocated. DWA has a protocol in place.</p> <p>DH: Heritage Impact Assessment to be conducted as part of EIA. Will ensure compliance with the legal requirements and will consult with Amafa and the affected families.</p> <p><i>Refer to the following responses:</i></p> <ul style="list-style-type: none"> • No. 96 - relocation of graves; and • No. 211 - relocation of dwellings within the basin.
Source: Meeting with Deepdale Community – 24 October 2013							
102.	We are also concerned about where our cows will graze since the proposed Dam is to be located where our cows graze.	S. Ngcobo	✓	✓			<p>DH: Matter to be assessed further as part of the Social Impact Assessment to be conducted in the EIA phase.</p>
Source: Meeting with Deepdale Community – 24 October 2013							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
103.	AmaQadi Authority sold land without concern for people when Inanda Dam was built. Is this going to happen again?	S. Ngcobo	✓	✓			DH: Fair and legal process to be followed for the acquisition of the land.
Source: Meeting with Deepdale Community – 24 October 2013							
104.	There's a belief in our community that water attracts big snakes.	L. Hlungelwa	✓	✓			<i>Heritage Impact Assessment to consider cultural and indigenous beliefs surrounding the watercourse, as raised during the public meetings.</i>

2.9 Public Participation

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 22 September 2013							
105.	Need to be key part of the process and involved with all stakeholder meetings.	C. Daniel (Sappi Southern Africa Ltd, Sappi Saiccor Mill)	✓	✓	✓	✓	Noted. Public participation to be conducted in accordance with the EIA Regulations (2010).
Source: Correspondence (completed Reply Form) – 16 October 2013							
106.	Interested to understand the complete project, before commenting. Will attend the meeting.	P. Maharaj (Baynesfield Factory)		✓	✓	✓	Noted.
Source: Correspondence – 18 October 2013							
107.	Please could you also notify: <ul style="list-style-type: none"> KZN Conservancies Association Game Rangers Association: Chris Galliers: chris@wessa.co.za; Midlands Conservancies Forum: Judy Bell: judybell@mweb.co.za; Coastwatch: Caro Schwegman: afromatz@telkomsa.net; Endangered Wildlife Trust 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓	✓	I&AP database updated accordingly and parties notified.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<ul style="list-style-type: none"> World Wildlife Fund: Sue Viljoen: sviljoen@wwf.org.za International Rivers: Rudo Sanyanga: rudo@internationalrivers.org KZN Canoe Union: Kirsten Oliver: kayakir@hotmail.com Highover Wildlife Sanctuary: Sheri: highover@telkomsa.net Mpushini Trust: Nora Chevaux: nac@pmbtrust.org 						
Source: Correspondence (completed Reply Form) – 18 October 2013							
108.	To be kept informed and submit objections.	P. Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	Noted.
Source: Correspondence (completed Reply Form) – 22 October 2013							
109.	<p>Please keep me informed and invited to meetings timeously.</p> <p>I am not able to attend the first meeting due to prior commitment and invitation arriving less than 24 hours before the meeting</p>	Mr Bill & Mrs Teri Beghin		✓	✓	✓	Noted.
Source: Meeting at Baynesfield Club – 23 October 2013							
110.	Emphasised the need to engage with the Richmond Fire Protection Association.	T. Tedder (Richmond Fire Protection Association)	✓	✓	✓	✓	<p>DH: This requirement will be stipulated in the EMPr.</p> <p><i>Richmond Fire Protection Association included in database of I&APs.</i></p>
Source: Meeting at Baynesfield Club – 23 October 2013							
111.	Enquired about the engagement with the community at the Smithfield Dam site.	A. Monis (Richmond Agricultural Society)	✓	✓			DH: Provided feedback on meetings held to date with the Traditional Authorities. The local community has also been informed of the project through members of the Feasibility Study team.
Source: Meeting at Baynesfield Club – 23 October 2013							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
112.	Stakeholders need to be engaged as early as possible in the planning process of large dams.	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓	✓	KB: Stakeholder engagement was undertaken during the previous phases of the project lifecycle.

2.10 Property

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 17 October 2013							
113.	Impact on our properties by the pipeline.	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)				✓	The permanent servitude will be about 15 metres wide, and the temporary construction servitude will be an additional about 30 metres. Impacts to properties to be assessed during the EIA. Mitigation measures to be identified to manage impacts to environmental features.
Source: Correspondence (completed Reply Form) – 17 October 2013							
114.	How much land will be affected by the project?	Q. Khumalo (Rapid Dawn 1064 CC)				✓	<i>Refer to response provided for no. 113 regarding the extent of the permanent and temporary servitudes.</i>
Source: Meeting at Baynesfield Club – 23 October 2013							
115.	Will the development have any impacts on trust land?	A. Monis (Richmond Agricultural Society)	✓	✓	✓	✓	DH: The dam is situated on land owned by Traditional authorities. Due to its depth the tunnel will have minimal impacts above ground, apart from the portals and shafts. The remainder of the infrastructure is located on private land. <i>Baynesfield Estate is part of the Joseph Baynes Trust.</i>
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
116.	My land is situated close to an industrial area. If I decide to sell my land in the future for industrial use, what will happen to the pipeline?	B. Crookes				✓	LA: The servitude will remain a restriction for future development.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
117.	How wide will the servitude be?	B. Crookes				✓	AD: The permanent servitude will be 15 meters. LA: The construction servitude will be 30meters.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
118.	I do not have a problem with the pipeline servitude. However, I object to the WTW. No compensation will be adequate. The land will be sold for industrial use if there is insufficient land left for sugar cane production. The 21 hectares earmarked for the WTW is located in the best area of my farm. If I have to sell that area of my farm I would like to have enough money to buy another farm. The compensation will need to consider the costs incurred over a 10 - 20 year period.	B. Crookes				✓	<i>Before construction commences, a negotiator from Umgeni Water will engage with the affected landowners to secure servitude rights. Compensation measures will need to be evaluated in close consultation with the affected parties.</i>
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
119.	What is the extent of the WTW?	B. Crookes				✓	GL: Umgeni Water will acquire the full area earmarked for the works but will only require half of this space for the WTW. The remainder of the area will be kept for possible future expansions.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
120.	If the pipeline is gravity fed then the WTW site on my land is not appropriate due to its elevation.	B. Crookes				✓	GL: The site on your land is not favourable as it will entail substantial excavation which will generate large volumes of spoil material. <i>Refer to response to no. 4 regarding the WTW Option on Crookes Farm that was subsequently discarded.</i>
Source: Correspondence (completed Reply Form) – 04 November 2013							
121.	While scale is difficult to assess impact of Option 1 alignment, it appears that it will impact on our property. Alignment to be accurately advised. We have a confirmed wetland and impact thereon, if alignment impacts on same, needs to be considered.	G. Dames (Afroprop Natal)				✓	Wetland Assessment and Delineation Study to be undertaken in EIA phase.
Source: Correspondence (Email) – 21 January 2014							
122.	After a meeting with Elaine Donaldson (yesterday 20th January 2014) from the Mkhambathini	S. Bishop				✓	The uMWP-1 Potable Water component does not include any new reservoirs at Umlaas Road. The potable water pipeline will link into

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Municipality it was brought to our attention that Umgeni Water are in the planning stages of a major upgrade to their plant in Umlaas Road, and that it could have a huge impact on our property. We are the first farm next door to Umgeni Water in Umlaas Road.</p> <p>Elaine suggested that I contact you directly and ask for more details in the interests of any future development that we have planned for our home and property.</p>						<p>the existing '57 Pipeline – Western Aqueduct.</p> <p>Umgeni Water however needs to advise whether upgrades at Umlaas Rd are planned as part of other projects.</p> <p>I've attached a map showing the proposed pipeline route (green line) in the Umlaas Road area. What is your property description?</p>
Source: Correspondence (Email) – 27 January 2014							
123.	<p>Thank you for getting back to me – the property description is Sub 250 of the Farm Vaalkop and Dadelfontein No 885.</p> <p>Please could you double check now that you have the property description, as Elaine Donaldson seemed adamant that it would have a direct impact on us.</p> <p>Apologies for adding to your workload, however we would hate to be kept in the dark should there be any development under discussion with regards to our property.</p>	S. Bishop				✓	<p>Provided a map to Mr Bishop showing the pipeline route in relation to Ptn 250 of the Farm Vaalkop and Dadelfontein No. 885. If we have the map correct, the property in question lies to the east of the R103 will not be directly affected.</p>
Source: Correspondence (Email) – 31 January 2014							
124.	<p>The proposed water treatment works that has been identified on Joseph Baynes Estate, is land which is in trust that is administrated under the will of Joseph Baynes.</p> <p>This will needs to be taken into consideration with this proposed site.</p>	P. Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	<p>Meeting held with the Joseph Baynes Estate Trustees on 19 August 2014 to discuss any concerns.</p> <p>Trust Deed will be consulted when land is expropriated. Legal implications will be addressed.</p>
Source: Correspondence (Letter) – 10 March 2014							
125.	<p>We act on behalf of Rainbow Farms (Pty) Limited.</p> <p>Our client has received notification of the abovementioned project, and specifically of the fact</p>	Knight Turner Attorneys				✓	<p>Subsequent engagement between Rainbow Farms and the technical team lead to the deviation of the potable water pipeline route in order to minimise impacts to existing chicken houses.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>that the proposed pipeline route will cross its property and that there will be test pits on its property.</p> <p>Our client has some concerns with the current proposed pipeline route as it passes close to certain of its chicken houses, which are extremely sensitive.</p> <p>Our client proposes that a meeting be set up in order that a more mutually acceptable route for the pipeline can be discussed.</p> <p>Kindly advise when representatives of your offices would be available for such a meeting.</p>						

2.11 Water Use and Supply

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 22 September 2013							
126.	<p>Assurance of continued water supply to Sappi Saiccor Mill – require a guaranteed supply of not less than 6 500m³ per hour 24 hours a day and 365 days a year to sustain the Mill.</p> <p>A reduction in water to our intake structure will have severe economic consequences for the Mill and the people it employs and supports. The effect of the proposal must therefore be carefully considered.</p>	C. Daniel (Sappi Southern Africa Ltd, Sappi Saiccor Mill)	✓	✓	✓	✓	<p>Existing water use entitlements should not be affected by the uMWP-1.</p> <p>DWA water use licensing procedures will guide ongoing water allocation.</p> <p>During the water resource analysis DWA made sure that Sappi Saiccor will not be worse off, and that the current situation will not be affected.</p>
Source: Correspondence (completed Reply Form) – 17 October 2013							
127.	<ul style="list-style-type: none"> How will this affect the supply of water to our many chicken farms that draw water from the pipeline? Impact on water costs which are already extremely high from uMgungundlovu and 	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)	✓	✓	✓	✓	The uMWP-1 entails new infrastructure to transfer water to the Mgeni system, based on water requirement projections for this supply area. No anticipated impacts to current water supply, as it will be a new pipeline. In the event of shutdowns for maintenance, notification of planned shutdowns is advised. Costs of transferred

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>eThekweni Municipalities.</p> <ul style="list-style-type: none"> • Interruption of water supplies whilst work is being undertaken and what contingency plans will be in place? • Ability to meet the requirements of all users of water. 						water to be determined.
Source: Correspondence (completed Reply Form) – 17 October 2013							
128.	Is Umgeni to also provide the area with fresh water?	Q. Khumalo (Rapid Dawn 1064 CC)				✓	The purpose of the uMWP-1 is to transfer water to fulfil the long-term water requirements of the Mgeni Water Supply System. This system is the main water source that supplies the uMgungundlovu District Municipality, eThekweni Municipality and Msunduzi Local Municipality areas of jurisdiction, incorporating the greater Pietermaritzburg and Durban metropolitan areas. The uMWP-1 will thus not supply potable water to the Hopewell area where this landowner is situated. Water supply to this area will need to be addressed via the Water Services Authority, which is the municipality that has the executive authority to provide water services within its area of jurisdiction.
Source: Meeting with Impendle Tenant Forum & Neighbouring Community – 22 October 2013							
129.	Enquired about the role of the district municipality in the scheme. Will the local community benefit in terms of water provision?	B. Zondo (Ward Committee Member):	✓	✓			<p>KB: The scheme focuses on bulk water planning. Umgeni Water will act as the operator of the scheme. Water is then purchased by the local government. The water requirements of the local community need to be attended to by the relevant municipality. Benefits will accrue to the local community during the construction phase; however, the project will mostly require skilled labour.</p> <p><i>Refer to response provided for no. 135 regarding water supply to the local community.</i></p>
Source: Meeting at Baynesfield Club – 23 October 2013							
130.	Will the Langa Balancing Dam affect downstream water users?	A. Monis (Richmond Agricultural Society)			✓		HP: The balancing dam will only serve to store water to facilitate maintenance to the tunnel. Water supply will not be jeopardised.
Source: Meeting at Baynesfield Club – 23 October 2013							
131.	Are the communities around Smithfield Dam aware that they will not be able to access the water? These communities do not currently have any water.	P.S. Rees (Duzi Umgeni Conservation)	✓	✓			HP: The area falls within the Bulwer Dam supply area and there are plans in place to supply these communities with water.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
		Trust)					<i>Refer to response provided for no. 135 regarding water supply to the local community.</i>
Source: Correspondence (Fax) – 23 October 2013							
132.	To be addressed in the EIA for the proposed project: <ul style="list-style-type: none"> We are not irrigating at present from the Mbangweni River but may need to draw water from the river later for the houses and irrigation, as at present we are using a spring on the farm that may be affected if the catchment area is changed. 	L. Antel (Harry Antel Family Trust)	✓	✓	✓	✓	Geotechnical and geophysical investigations to be conducted for the project.
Source: Correspondence (completed Reply Form) – 23 October 2013							
133.	<ul style="list-style-type: none"> The river is used for major annual canoeing events. The construction of the dams and transfer scheme will seriously impact on the ability to utilise the river for canoeing events. Consider releases for paddling. Construction of slalom and white water course at the outlet of the transfer tunnel. 	S. Braid (Environmental Officer: Canoeing South Africa)	✓				<p>Impacts from proposed Smithfield Dam on downstream water use (including recreation) to be assessed in the EIA phase. Provision for releases to satisfy downstream flow requirements to be considered for the dam's operational phase.</p> <p>A slalom course at the tunnel outlet will not be possible as the tunnel flows directly into a pressure pipeline, through the hydropower turbines into the Water Treatment Plant. In addition, a drop of 4 to 10 m in the system cannot be accommodated. However, further consideration can be given to alternatives such as downstream of the proposed Smithfield Dam.</p>
Source: Meeting at Baynesfield Club – 23 October 2013							
134.	Could the balancing dam also be used for recreational purposes in the future?	A. Carpenter		✓	✓	✓	<p>KB: With normal dams DWA undertakes a formal process to explore recreational opportunities. Community participation is a key component of this process. The feasibility of recreational use of a balancing dam needs to be investigated further.</p> <p><i>Refer to response provided for no. 97 regarding recreational use of the balancing dam.</i></p>
Source: Meeting with Amaqadi Community – 24 October 2013							
135.	Our community has a shortage of water. How will the community benefit from the project? Umgeni Water should ensure that the water is provided to the community since they are using the local catchment.	Mr Ngcobo (Ingwe Local Municipality)	✓	✓			<p>KB: The relevant municipalities are responsible for water provision to the communities.</p> <p>DH: The Sisonke District Municipality will be requested to attend the next meeting with the community to explain water provision to the community.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>As part of the feasibility study for the proposed Smithfield Dam, a desktop-level study was carried out to ascertain the following:</p> <ul style="list-style-type: none"> The current water sources being used by the communities surrounding the dam; and The possibility of feasibly supplying these communities from Smithfield Dam in the future. <p>Note that a separate EIA will be conducted for the Smithfield Dam local water supply scheme.</p>
Source: Meeting with Deepdale Community – 24 October 2013							
136.	Will the community be provided with water from this scheme?	Mr Ngubani	✓	✓			<p>KB: The relevant municipalities are responsible for water provision to the communities.</p> <p>Refer to response provided for no. 135 regarding water supply to the local community.</p>
Source: Meeting with Deepdale Community – 24 October 2013							
137.	Can the dam be used for recreational purposes?	Mr Ngubani	✓	✓			<p>KB: The feasibility of recreational use at the dam will need to be explored through a separate process. As part of the EIA process, we need to engage with the community and take into consideration their needs.</p> <p>Refer to response provided for no. 99 regarding recreational use of Smithfield Dam.</p>
Source: Meeting with Deepdale Community – 24 October 2013							
138.	How will the fish be affected, as the river is used for fishing?	Mr Magwaza	✓	✓			<p>DH: Provision will be made to release sufficient water from the dam to cater for the downstream ecological requirements. Amongst others, the dam will affect migration of aquatic biota.</p> <p>Aquatic Assessment to be conducted in the EIA phase.</p>
Source: Correspondence – 14 November 2013							
139.	<p>With regards to the uMkhomazi Water Project Phase 1, I have some preliminary requests/comments from the canoeists.</p> <p>The Umko marathon is the main Big Water marathon on the South African canoeing calendar. It is a true</p>	S. Braid (Environmental Officer: Canoeing South Africa)	✓				Refer to response provided for no. 133.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>test paddlers abilities. By constructing a dam upstream of the reach of river used for the marathon, will regulate and reduce the flow water along the section of river used both for this marathon, as well as by recreational kayakers. It is becoming increasing difficult to find a pristin river in South Africa to practice canoeing and kayaking disciplines due to the increasing development of various infrastructure whether hydropower, dams, transfer schemes, etc. It is pertinent to reminder developers that canoeing is one of our countries top 7 Olympic sports, and one in which we won a medal in the recent London Olympics. The South African government has and is investing a lot of money into sports and recreation, especially as a tool/driver for redressing past segregation. Canoeing disciplines has been one of the sporting codes that has achieved this integration, with the majority of the slalom team coming from previously disadvantaged communities, and the likes of the Dusi valley stars and the Dusi canoe marathon.</p> <p>Understanding need to provide water services to growing demand, but still accommodating our sport, the canoeing fraternity would like to make the following requests:</p> <p>1. To construct a slalom course at the outlet of the transfer tunnel before the balancing dam. A slalom course is 250-300m in length, with a drop of 4-10m over this length and requires a flow rate of 12m/s, with a settling pond at the end. The slalom channel will include obstacles (e.g. concrete blocks, that can be moved around in the channel to create obstacles the kayakers must navigate. This slalom channel can be the outlet channel from the tunnel to the balancing dam. http://en.wikipedia.org/wiki/Whitewater_slalom http://en.wikipedia.org/wiki/List_of_artificial_whitewater_courses</p> <p><i>Subsequently suggested that the slalom course be</i></p>						

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>called the "Alick Rennie Slalom course" in remembrance of the Olympian and South African Slalom Champion.</p> <p>2. The necessary volume release be made from the dam for both the tripping weekend and the marathon race days (2 day race) of the Umko Canoe Marathon. The tripping weekend is held a week or 2 prior to the actual marathon, so paddlers can familiarise themselves with the rapids and obstacles in the river. This is a safety requirement for the paddlers.</p>						

2.12 Electrical Requirements

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence – 22 October 2013							
140.	<p>Do you have any info that relates to electrical requirements for the proposed project? Ideally I would like:</p> <ol style="list-style-type: none"> 1) lat-longs; 2) estimated power requirements; 3) starting methodology. 	E. van Heerden (Eskom Distribution)	✓	✓	✓	✓	Technical team to engage with Eskom to discuss electrical requirements.
Source: Correspondence – 05 March 2014							
141.	<p>Eskom has no objection to your proposed development. If any power lines need to be relocated, the following costs and activities will be for the developers' account:</p> <ol style="list-style-type: none"> 1. Servitude negotiations of a mutually suitable relocation route. 2. Property servitude acquisition and land owner compensation costs. 3. Environmental work. 4. Dismantling cost (payable up front – Eskom 	Roland Moore (Eskom, Head of Engineering Survey, Eastern Output Unit)	✓	✓	✓	✓	Technical team to engage with Eskom to discuss electrical requirements.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>activity).</p> <p>5. New line build costs (payable up front– Eskom activity).</p> <p>6. Cadastral servitude registration surveys and the cancellation of vacated servitudes.</p>						
142.	<p>I am awaiting some detail regarding a planned underground cable near our Umlaas Road substation. Can you let me have the co-ordinates of the pipeline bend points?</p> <p>Please note that Eskom does not own the servitudes on which the power lines are situated we only enjoy certain rights over the property of a land owner. This consent does not relieve the applicant from obtaining the necessary statutory, land owner and municipal approvals.</p> <p>The survey and geotechnical work may proceed providing that the following conditions are complied with:</p> <ol style="list-style-type: none"> 1. No construction or excavation shall be executed within 10 meters of any Eskom power line structure. 2. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior permission having been granted by Eskom. If such permission is granted the applicant must give at least seven working days prior notice of the commencement of any work. This allows time for the arrangements to be made for supervision and/or precautionary instructions to be issued. 3. Under no circumstances shall rubble, earth or other material be dumped within the servitude area. The applicant shall maintain the area concerned to Eskom's satisfaction. The applicant shall be liable to Eskom for the cost of any remedial action, which has to be carried out by Eskom. 4. The height of laden vehicles crossing our 		✓	✓	✓	✓	<p>Technical team to engage with Eskom to discuss electrical requirements.</p> <p>EMPr to include Eskom's conditions for working in close proximity to power lines.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>servitude is not to exceed 4.5 metres.</p> <p>5. Should and any lifting equipment be used outside of our servitude area during the construction phase of the pipeline, it should not encroach within 10 metres of Eskom's power line/s.</p> <p>6. The servitude area is not to be used for the storage of material or equipment.</p>						

2.13 Existing Infrastructure

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 04 November 2013							
143.	Crossing of Petronet Oil Pipeline	E. Donaldson (Mkhambathini Local Municipality)				✓	Transnet Pipelines notified of the proposed project. Contact made with the servitude manager of Transnet Pipelines. Awaiting comments and specific requirements. Requirements to be included in the project's Record of Implementation Decisions.
144.	Impact on Umlaas Road Light Industrial Development Node. There are a number of light industrial developments in the pipeline for the Umlaas Road area – released 186 ha for this purpose.					✓	Impacts to the Umlaas Road Light Industrial Development Node to be investigated as part of the EIA. Further engagement required with the Mkhambathini Local Municipality.
145.	Require detailed mapping for area between R103 and R623 to determine impact on number of proposed projects. It's essential that we are advised of the exact route so that we can ascertain the impact on our infrastructure (existing and proposed).					✓	Spatial data for uMWP-1 Potable Water infrastructure provided to the Mkhambathini Local Municipality. Impacts to the proposed projects to be investigated as part of the EIA Further engagement required with the Mkhambathini Local Municipality.
146.	Additional reservoirs at Umlaas Road Works?					✓	The uMWP-1 Potable Water does not include any new reservoirs at Umlaas Road. The potable water pipeline will link into the existing '57 Pipeline – Western Aqueduct.
147.	Servitude to be registered – require widths, etc.					✓	Details of the proposed potable water pipeline follows: <ul style="list-style-type: none"> • DN2100 (2.1 metre diameter) thin-walled steel pipeline/s; • Total length = 21.3 km (24.5 km alternate route);

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<ul style="list-style-type: none"> Pipeline depth = approximately four metres to invert; and Permanent servitude = 15 metres (temporary construction servitude an additional 30 metres).
Source: Correspondence – 05 November 2014							
148.	Please note that all the water transfer schemes and linking of dams takes place to the west of the N3 and the SA National Roads Agency SOC Limited is therefore not affected. Please do not send this office any further correspondence regarding the matter.	C. Landman (SA National Roads Agency SOC Limited)	✓	✓	✓	✓	Noted. Provided a zoomed-in map of the eastern part of the project area, which shows the termination point of the potable water pipeline near the N3.
Source: Correspondence – 08 November 2014							
149.	Transnet Pipelines (ex-Petronet), a division of Transnet SOC Limited, has no objection in principle to the proposed uMWP-1 crossing the ø609,6mm pipeline within Transnet's 6m wide pipeline servitudes as indicated on the Cato Ridge Cadastral Plan, subject to compliance to our standard crossing conditions and requirements (attached to letter). This authority shall only be valid for 24 months from the date of this letter. If problems are encountered, an extension of time must be requested 2 months before the validity period expires.	T. Hadebe (Transnet Pipelines Servitude Management)				✓	Requirements of Transnet Pipelines noted.
Source: Correspondence – 11 November 2014							
150.	Please find the attached Google Earth Images depicting our pipeline route in the Camperdown area.	T. Hadebe (Transnet Pipelines Servitude Management)				✓	Confirmed that the potable water pipeline will traverse the Transnet pipeline servitude. Requirements of Transnet Pipelines noted.

2.14 Project Timeframe

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (completed Reply Form) – 16 October 2014							
151.	Timetable for project, specifically completion by 2023.	W.M. Pfaff	✓	✓	✓	✓	<p>Tentative timeframes for the project follow:</p> <ul style="list-style-type: none"> • Feasibility Study - 2012 to 2015; • Decision Support Phase - 2015 to 2017; • Design/documentation Phase - 2017 to 2019; and • Construction/implementation phase - 2019 to 2023. • Water delivery in 2023. <p><i>Detail construction programme for the raw water components will be included in the Feasibility Design Report.</i></p>

2.15 Construction Methodology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Amaqadi Community – 24 October 2013							
152.	Will the tunnel release water along its length? What method will be used for tunnel construction - excavation or blasting?	Mr Ngcobo (Ingwe Local Municipality)	✓	✓			KB: Controlled dewatering of the tunnel will be undertaken. The tunnel will be created with a Tunnel Boring Machine, as it will be far more economical and quicker to construct than conventional tunnelling methods.

2.16 Waste Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 23 October 2013							
153.	Raised a concern with the waste disposal site for the spoil material on the Baynesfield Estate. Enquired about the volume of spoil material that will be	M. van Deventer (Baynesfield Estate)		✓			HP: An alternative to the spoiling site is under investigation, which will entail the possible use of the spoil material in the dam wall.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	generated at the tunnel outlet.						DH: The volume of excavated material to be generated at the tunnel outlet is approximately 920 000 m ³ .
Source: Meeting at Baynesfield Club – 23 October 2013							
154.	Where will the waste from the WTW be disposed of?	R. Gevers				✓	DH: Presented the following options for the disposal of the sludge from the WTW: <ul style="list-style-type: none"> • Disposal to land to support an agricultural operation; • Disposal at a licenced landfill; or • Re-use (e.g. using it as additive for making bricks).
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
155.	How will the sludge from the WTW be disposed of? Expressed dissatisfaction with trucks travelling in close proximity to his house.	B. Crookes				✓	GL: There are three options for dealing with the sludge, namely to dispose of it at a landfill, using it as additive for making bricks, or disposal to land to support an agricultural operation. DH: Noted concerns with regards to movement of trucks. <i>Traffic Impact Study to be conducted in the EIA phase to assess inter alia the impacts on the local road networks due to the project.</i>

2.17 Operation of the Scheme

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 23 October 2013							
156.	What volume of input material will be required for the operation of the WTW per day?	R. Gevers				✓	GL: Approximately 30 tons, which will be 1 truck per day for the complete plant.
Source: Meeting at Baynesfield Club – 23 October 2013							
157.	Until when will the capacity of the WTW be sufficient?	A. Carpenter				✓	GL: The expected period is up to 2053. <i>Following further planning as part of the technical feasibility study, the draft Scoping Report explained the phasing of the WTW as follows:</i> <ul style="list-style-type: none"> • The uMkhomazi water treatment works has been planned


No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>such that it can be constructed in modules of 125 MI/day. The minimum size of the treatment plant required upon commissioning of the scheme is 250 MI/day. This will provide sufficient capacity between commissioning and the year 2031 when the Pinetown, KwaDabeka and Tshelimnyama subsystems are transferred to the uMkhomazi scheme.</p> <ul style="list-style-type: none"> • A further 125 MI/day module will therefore be required in 2031. It is however recommended that a 500 MI/day module be constructed initially so as to allow spare capacity for outages that may occur on the aged pumped systems from Durban Heights Waterworks. Should this recommendation be accepted, the Pinetown, KwaDabeka and Tshelimnyama subsystems can be transferred to the uMkhomazi scheme immediately after commissioning of the 500 MI/day WTW in the year 2023. • It is planned that a portion of the Northern Aqueduct demand will be shed to the uMkhomazi scheme in 2044. Once this happens, the 500 MI/day WTW will quickly run out of capacity by 2049 and it is therefore recommended that a further 125 MI/day module be commissioned in 2044, taking the total WTW capacity to 625 MI/day in that year.
Source: Meeting at Baynesfield Club – 23 October 2013							
158.	Have the impacts from siltation to the dam's storage capacity been investigated?	I. Little (EWT)	✓				<p>HP: Confirmed that this forms part of the Feasibility Study.</p> <p><i>The catchment sediment yield was estimated and the consequent reductions in future storage capacity that can be expected for the proposed Smithfield Dam was determined as part of the uMWP-1 Feasibility Study. This study included selected information on the verification of catchment sediment yield of the proposed Smithfield Dam and the potential impact thereof on the proposed dam development.</i></p>
Source: Meeting at Baynesfield Club – 23 October 2013							
159.	Noted loss of storage capacity in other dams due to siltation.	T. Tedder (Richmond Fire Protection Association)	✓				<p>Refer to response to no. 158 regarding impacts from siltation to the dam's storage capacity.</p>
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
160.	Will the pipeline servitude be maintained?	B. Crookes				✓	LA: Umgeni Water implements an active grass cutting programme for its servitudes.
Source: Meeting at Beaumont Eston Farmers Club – 23 October 2013							
161.	What is the capacity of the reservoir at the WTW? What happens if the reservoir breaks?	B. Crookes				✓	GL: The storage capacity of the reservoir is 300 mega litres. The reservoir will be located underground and these structures do not normally fail. <i>Refer to response to no. 157 regarding the proposed phasing of the WTW.</i>

3 COMMENTS AND RESPONSES – REVIEW OF DRAFT SCOPING REPORTS

3.1 Alternatives

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 29 July 2014							
162.	Please also ensure that proper alternatives have been considered for this project up front, to meaningfully explore other options to building a dam on the last river in KZN without one. This is a requirement of the law that is very often neglected by the EAPs with whom we have to deal with on projects of this nature. Examples must include investment in the ecosystems that supply water, as we believe this will be more effective than merely building a dam to store water during a protracted drought and especially in areas of over-abstraction of the resource.	J. Bell (Midlands Conservancies Forum)	✓	✓	✓	✓	<p>It was requested during our first round of EIA meetings during the project announcement phase that we provide a detailed discussion in the Scoping Report of the screened alternatives that were explored to meet the water demands of the Integrated Mgeni Water System. This includes a write-up on the following (amongst others):</p> <ul style="list-style-type: none"> • Measures to increase the Water Resource; • Desalination; • Re-use of treated effluent; • Use of groundwater; • Water Conservation and Water Demand Management; • Options for the uMkhomazi-Mgeni Transfer Scheme investigated during the Pre-Feasibility Study; and • No-go option.
Source: Correspondence (Letter) – 04 September 2014							
163.	<p>In addition to Coastwatch engaging in the public participation process for the environmental impact assessment for the proposed Smithfield dam and associated infrastructure we take the opportunity to raise concerns regarding the Umkhomazi Water Project (UMWP) as set out in the EIA documents wherein only a single alternative is presented. Coastwatch comments as follows -</p> <ol style="list-style-type: none"> 1. Environmental Impact Assessment – Phase 1 scoping reports for the UMWP; 2. The proposed Umkhomazi Water Project. <p>Motivation and Alternatives The scoping reports expand on the various alternatives which have been considered to address</p>	R. Bulman and C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	<p><i>Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx).</i></p> <p>Strategic priority <i>The uMWP is evaluated in the latest best practice as described in the ICOLD 2012 World Declaration signed by International Commission on large dams, The International Commission on Irrigation and Drainage, The International Hydropower Association and the International Water resources Association, of which a summary is as follows:</i></p> <ul style="list-style-type: none"> • <i>Water is life and water storage infrastructure is an indispensable tool for society.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>the demands on the Integrated Mgeni Water Supply System (WSS) including, <i>inter alia</i>, measures to increase the water resource, desalination, water re-use, water conservation and demand management, as well as the use of groundwater. Eight alternatives were screened and are reported on briefly, with the preferred alternative of the Smithfield Dam and associated infrastructure being advanced to EIA following pre-feasibility studies.</p> <p>Coastwatch remains extremely concerned with the proposal to impound the remaining free flowing river in KZN. We find that issues raised in our preliminary submission (comment dated 18/11/13) have not been responded in a manner that assures us that proper alternatives have been considered for this project up front, nor have options other than an in-stream dam been meaningfully explored.</p> <p>The preferred alternative, a catchment transfer scheme Umkhomazi to the Mgeni Integrated WSS was mooted in the early 1990's with the Department of Water Affairs completing a pre-feasibility report in 1999. Given that 25 years or so has elapsed it is of great concern that government (at all levels) has not, in the intervening time, meaningfully addressed the sustainable supply of water. One would expect the focus to have shifted from mitigation and compensation to avoidance and minimisation of social and environmental impacts, these being fundamental criteria which should guide any options assessment. We find that Coastwatch's initial submission (comment dated 18/11/13) in which our concerns were raised has, in many respects, been dismissed.</p> <p><u>Ecological Infrastructure</u> In line with the recognition of the value and contribution of ecological infrastructure Coastwatch has raised the need for investment in improving catchments and ecosystems to address water</p>					<ul style="list-style-type: none"> • <i>Investment in water storage infrastructure is investment in the green economy.</i> • <i>The services dams provide will be crucial in the mitigation of, and adaptation to, climate change.</i> • <i>To meet growing demands for water, food and energy, it is time to develop solutions for better use of water resources, especially for developing countries, and to match political commitments with action.</i> • <i>A balanced approach, combining large, medium and small reservoirs, is required; one that takes into account sustainable development, with full commitment to minimize negative impact.</i> • <i>The organizations signing this declaration commit to collaborate with all partners and stakeholders that share this common vision.</i> 	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>security. The catchment for the Smithfield Dam is highly degraded and if restoration efforts were implemented the size of the dam could be reduced therefore reducing the size of the investment needed with this saving being used for land restoration investments with long-term benefits for the communities in the catchment. This approach has been followed for the Ntabelange Dam on the Tsitsa River, Umzimvubu and praised by President Zuma at the launch of this project. There is no reason is given why the same can't be done with respect to the Smithfield Dam (and Impendle Dam). It is a concern indeed that the specifications for the dam have not been revisited after this recognition of the value of ecological infrastructure.</p> <p>We repeat the need for assessment of alternatives to the proposed dam on the Umkhomazi River:</p> <ul style="list-style-type: none"> Investment in eco-systems that supply water. We submit that this will be more effective than merely building a dam to store water during a protracted drought and especially in areas of over abstraction of the resource; Off-channel storage. While it is reported that it is only the proposed Smithfield Dam project which will provide the need for 200 million m³/annum we have not seen investigation into more than one off-channel storage reservoir to meet the need. <p>In addition, Coastwatch strongly urges ongoing assessment and investigation of parallel and complementary interventions to improve individual options or provide a set of options to respond to the need to manage our water resources in a sustainable manner, which could include, but not limited to, the following:</p> <ul style="list-style-type: none"> Industrial scale rainwater harvesting; Water Re-use including closed system recycling with mandatory optimal efficiency at industry level; Effluent Re-use, such as that being investigated 					<p><i>Environmental services of this declaration include aspects as follows:</i></p> <p><i>Water storage infrastructure can keep the healthy life of rivers through ecological operation and serve wider environmental services. They can allow upkeep of minimum flows during the dry season which enable the preservation of many aquatic animals and plants during droughts. Moreover, dams and reservoirs contribute to stabilizing ground water levels in adjacent land areas. Reservoirs can also be used to create new and biologically desirable habitats and to irrigate wetland biotopes or wetland forests.</i></p> <p><u>Alternative Sanitation Technologies:</u></p> <p><i>Regarding water for sanitation, as per the 2012 Green Drop report, eThekweni produces on average 694MI/day of effluent. However, this includes considerable amounts of stormwater ingress into the sewers which can account for 25-50% of effluent volume and one can therefore assume sanitation volume of 416MI/day based on 40% stormwater ingress.</i></p> <p><i>The amount of water used for sanitation is also dependant on the type of sanitation used and can vary according to levels of service. According to the 2011 Water Services Development Plan of eThekweni, the current sanitation situation is comprised of the following:</i></p> <ul style="list-style-type: none"> <i>54% of households have flush toilets connected to sewerage,</i> <i>about 4% have flush toilets connected a septic tank,</i> <i>about 10% have urine-diverting dry toilets,</i> <i>about 4% have improved (ventilated) pit latrines,</i> <i>4% have access to community ablution blocks, and</i> <i>Backlog is of 24%.</i> <p><i>Based on the above, one can assume that the amount of water used for flushing toilets is 54% of the total = 54% of 416MI/day = 224MI/day.</i></p> <p><i>If waterborne sanitation was installed to address the 24% backlogs, we can assume that an additional 99MI/day would be required by eThekweni in the future. (54%=224MI/day), 1% =</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>by eThekweni Municipality;</p> <ul style="list-style-type: none"> Water conservation and demand management at household level with civil society awareness programmes; Alternative sanitation technologies which are not a burden on potable water supplies; Preventable water losses, which the Water Research Commission estimates at 36.8% over the past six years (equal to 1.58-billion cubic metres a year or about R11-billion). <p>Strategic priority In addition to the perspectives outlined above Coastwatch finds that the proposed UMWP is not aligned with the strategic priorities and corresponding policy principles set out as part of the World Commission on Dams, published in November 2000, which need to be adhered to. The UMWP must be evaluated in the context of international best practice including sustaining rivers and livelihoods.</p> <p>Summary In summary Coastwatch respectfully submits the following comments on the Draft Scoping Report:</p> <ul style="list-style-type: none"> Motivation The scheme is itself deeply flawed as a mechanism to deliver water in appropriate quantities and of an appropriate quality in a sustainable manner to all the users in the region. Raw water component <ul style="list-style-type: none"> The particulars of the proposed development have not given sufficient weight to the services delivered by the ecological infrastructure; The degree to which sediment delivery will be compromised and the impact of this on the marine and estuarine environment and the KZN coastal tourism industry has not been adequately investigated. 					<p>4.1Ml/day).</p> <p><i>eThekweni currently has four (4) levels of Supply of Sanitation to Households within its jurisdiction (Policies and Practices of the eThekweni Municipality Water and Sanitation Unit: Revision 1 – 26 April 2012):</i></p> <ol style="list-style-type: none"> <i>Privately owned Urine Diversion (UD) toilets.</i> <i>Connection to the Municipal waterborne sewerage reticulation system.</i> <i>Allowed private connections based on privately owned septic tank and conservancy tank systems and privately owned low volume sewage treatment plants for waterborne sewage disposal.</i> <i>An on-site privately owned sewage disposal system - this is permitted where a Municipal waterborne sewerage reticulation system is not available.</i> <p><i>Informal Settlement / Rural Sanitation are provided by means of either:</i></p> <ol style="list-style-type: none"> <i>An ablution block connected to Municipal waterborne reticulation (an ablution block consists of toilets, showers, and clothes washing facilities), or</i> <i>A toilet block where no connection to waterborne reticulation is available (a toilet block consists of toilets and urinals only with no water supply provided to the toilet block). Each toilet is provided with its own VIP pit which will be emptied as and when required.</i> <p><i>The Sanitation options not permitted within the ELM:</i></p> <ol style="list-style-type: none"> <i>Night soil pail,</i> <i>Simple, unimproved pit latrine, and</i> <i>Conventional VIP and Chemical toilet (unless motivated and approved by the Head: Water and Sanitation under exceptional circumstances).</i> <p><i>The only approved sanitation alternative that will not be a burden on potable water resources is the dry sanitation - 'urine diversion dehydration toilets' (UDDTs) option. Several factors influenced the selection of UDDTs over other available sanitation options (http://www.durban.gov.za/City_Services/water_sanitation/Policies_Plans_Guidelines/Documents/WSDP2012_Approved.pdf)</i></p>	

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						<ul style="list-style-type: none"> Fitting households from a municipal waterborne reticulation system to dry sanitation is not feasible due to social backlash and financial constraints (replacement costs, training / education awareness etc.) It is a viable option to install UDDTS to address current backlogs of 24%. This option has been favoured by eThekweni as the UDDT system is cheaper to install, operate and maintain. However addressing the 24% backlog is equivalent to saving of only 99Ml/day. Furthermore, the amount of water required for industries far outweighs the requirement for domestic (including effluent) usage and retrofitting existing industries with UDDT's is the decision of industries and not the municipality. <p>The installation of UDDT's will results in reducing consumption in the future as backlogs are addressed but this is only a small percentage of the total amount of water required by eThekweni. This is a long term option which will contribute towards reducing water usage in the areas but will not affect the current shortage that needs to be addressed by the construction of the dam.</p> <p>Minimum requirements for acceptable access to Sanitation are: 1 = Flush toilet (connected to sewerage system) 2 = Flush toilet (pits/ septic tank) 3 = Chemical toilet 4 = Pit toilet with ventilation (PIT)</p> <p>ETH EKHWINI 19.1%</p> <p>Legend: Sanitation Backlog (%) 0-10% 10-20% 20-30% 30-40% 40-50% 50-60% 60-70% 70-80% 80-90% 90-100%</p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Deepdale Community Hall – 05 August 2014							
164.	We support this project, as opposed to desalination, as it makes more sense to us. Thank you for keeping us informed.	Mr Sokhele	✓	✓			KB: Thank you and noted
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
165.	At the beginning of the project you mentioned five potential dam sites. Is Smithfield the best site?	Mr Ngcobo	✓	✓			KB: Following considerable assessment, Smithfield was identified is the best site for the proposed dam. Although the dam wall site may move slightly during final design, the site will at the end of the day for all practical purposes stay the same
Source: Meeting with the Impendle Tenant Forum – 05 August 2014							
166.	Will it not be possible to build the Water Treatment Works near the dam, as it may be cheaper than building it in Baynesfield and then conveying the water back to this community? My main concern was that you are taking water from our area to Richmond yet we do not have water. This concern was addressed.	Cllr Kunene	✓	✓			KB: The cost of the project is a major factor that is considered during the planning phase. Pumping is usually the most expensive part of the project, this will be required if the WTW is at Smithfield. Also, energy prices are expected to rise significantly in the next few years. You don't want to treat the water and then convey it through a tunnel where it can get contaminated again. The treated water will be transferred through pipes to Mgeni Water Supply System. However, at the dam there will be a small Water Treatment Works to make provision for water supply to the local community. <i>Refer to response to no. 135 regarding water supply to the local community.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
167.	Why was this particular site chosen for the dam?	Community Member	✓	✓			HP: One of the key factors in identifying the dam site is the topography. A narrow valley is cost effective. Secondly, the shape of the dam basin needs to be optimum. A wide flat dam will result in high evaporation. Thirdly, the full supply level of the dam in relation to the supply infrastructure was considered to design a gravity fed scheme. Further, suitable geological conditions are required. <i>A number of factors were considered in selecting the site for the Smithfield Dam, such as streamflow hydrology, geological conditions, topography, availability of construction material, seismic hazard, sediment yields, etc. The BPEO will only be determined following a comparative analysis of the feasible</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<i>alternatives during the EIA phase.</i>
Source: Meeting at Baynesfield Club – 07 August 2014							
168.	Require confirmation that the initial Option 1 for the WTW site has been disregarded.	M. van Deventer (Baynesfield Estate)				✓	AD: Confirmed that this option is no longer under consideration.
Source: Meeting at Baynesfield Club – 07 August 2014							
169.	Asked why the WTW option near Umlaas Road had been disregarded.	M. van Deventer (Baynesfield Estate)				✓	AD: Ideally the intention is to balance cut and fill material volumes. The WTW site near Umlaas Road requires a substantial cut, which makes this option less favourable.
Source: Meeting at Baynesfield Club – 07 August 2014							
170.	Enquired about the WTW site option near Hopewell.	C. Roseveare				✓	AD: This site is not large enough to accommodate the proposed WTW footprint.
Source: Meeting at Baynesfield Club – 07 August 2014							
171.	Enquired why the river could not be used as the conveyance system. It might also be cheaper as the length of pipeline required would be reduced.	P. Rolland	✓	✓	✓	✓	AD: The pipeline needs to follow a certain corridor to ensure that the water flows under gravity and to maintain pressure in the system. GS: If the river is used as the conveyance system pumping would be required, which is very expensive. <i>DWS Response: From an environmental perspective the river will not be able to handle the substantial increase in flow.</i>
Source: Meeting at Baynesfield Club – 07 August 2014							
172.	Is there no other site where the WTW can be located, such as an industrial area, instead of impacting on us?	P. Odell (NCT Tree Farming (Pty) Ltd)				✓	AD: The location of the WTW and pipeline is reliant on the topography as the system needs to be gravity fed. Based on the technical studies conducted, the current sites are deemed to be the most appropriate. LA: Noted that the proposed WTW is not as obtrusive as may be perceived, based on observations at the Midmar WTW. The only visible structures will be the buildings, where the remaining components will be at ground level or below ground. DH: The visual impacts associated with the WTW options will be assessed during the EIA phase. Noted that one of the three

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							potential WTW sites suggested by P. Odell was deemed to be viable and was included as an option in the EIA. GS: Mentioned that DWS indicated during the Water Use Authorisation meeting that additional forestry can be considered in the catchment if timberland is to be affected by the project.
Source: Meeting at Baynesfield Club – 07 August 2014							
173.	The project entails damming one of the last free-flowing rivers, which will have major impacts to the entire system. Alternatives must be considered. Municipalities lose 40% of water and if we can manage this loss we don't need a dam. We are asking for better management of existing water resources and wetlands.	R. Bulman (Coastwatch KZN)	✓	✓	✓	✓	<i>Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report.</i>
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
174.	Has a decision been made with regards to the preferred option for the potable water pipeline route?	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)				✓	AD: We have to undertake further technical investigations and it will also depend on the associated costs. GS: It will also depend on the environmental recommendations. DH: We will have to consider the outcomes of all the environmental specialist studies to determine which option is best. AD: Noted that the pipeline route has been adjusted based on the input of landowners.

3.2 Terrestrial Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 09 September 2014							
175.	The Department of Agriculture, Forestry and Fisheries (DAFF) appreciates the opportunity given to	J. Maivha (DAFF)	✓	✓	✓	✓	The legal frameworks in the Scoping Reports make provision for the National Forests Act (No. 84 of 1998).

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>review and comment on the Draft Scoping Report (DSR) for the abovementioned project.</p> <p>DAFF is the authority mandated to conserve natural forests and tree species protected in terms of the National Forests Act No. 84 of 1998. According to the DSR (dated July 2014), sections of the sites for the proposed activities constitute indigenous forests. It is brought to your attention that, DAFF is concerned about the potential loss of significant indigenous forests within the Smithfield Dam, as well as areas that are to be cleared for the project infrastructure and the relocation of existing infrastructure.</p> <p>DAFF is however satisfied with the plan of study for the Environmental Impact Assessment Report outlined in the DSR hence the Terrestrial Fauna and Flora Study will assess the status of the area affected by the proposed activities. Furthermore, DAFF recommends that the potential loss of indigenous forests and tree species protected in terms of the National Forests Act No. 84 of 1998 is thoroughly investigated and mitigation measures provided.</p> <p>The letter does not exempt you from considering other environmental legislation. Should any further information be required, please do not hesitate to contact this office.</p>	Directorate: Forestry Regulations and Support)					<p>Requirements of DAFF to be satisfied through Terrestrial Fauna and Flora Study to be conducted in the EIA phase.</p> <p>Permit(s) will be obtained under the National Forests Act (No. 84 of 1998) if protected trees are to be cut, disturbed, damaged, destroyed or removed. The project footprint will attempt to avoid protected trees, where possible.</p>
Source: Correspondence (Letter) – 11 September 2014							
176.	<p>The Department of Agriculture, Forestry and Fisheries (DAFF) appreciates the opportunity given to review and comment on the Draft Scoping Report (DSR) for the abovementioned project.</p> <p>DAFF is satisfied with the plan of study for the Environmental Impact Assessment Report outlined in the DSR hence the specialist ecological study will assess the status of the area affected by the proposed activities. Furthermore, DAFF recommends that the following must be taken into account when</p>	J. Maivha (DAFF: Directorate: Forestry Regulations and Support)	✓	✓	✓	✓	<i>Refer to response provided for no. 175.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>conducting the ecological assessment:</p> <p>a. Potential adverse impacts of the proposed activities on riparian habitats (i.e. watercourse crossings).</p> <p>b. Potential for tree species protected in terms of the National Forests Act No. 84 of 1998 occurring within the proposed development area.</p> <p>c. Proposed mitigation measures for (a) and (b) above.</p> <p>The letter does not exempt you from considering other environmental legislation. Should any further information be required, please do not hesitate to contact this office.</p>						
Source: Correspondence (Email) – 03 September 2014							
177.	<p>Good to meet you, and thanks for the feedback session today - I certainly learnt a lot.</p> <p>Just to recap about my 'off-the-top-of-my-head' suggestion re offsets. It would be fantastic if the rehab of, say, a plantation area adjacent to an existing Blue Swallow site could be used as an offset. It's not always possible to replace like for like (e.g. wetland for wetland), & thus I believe this rehab option would be a very worthwhile and important option.</p> <p>As I mentioned, the Blue Swallow is Critically Endangered in South Africa with only 24 pairs left - all of which now occur only in KZN! The Blue Swallows in Limpopo are now extinct, and the swallows in Mpumalanga are extinct as a breeding bird (there used to be a very healthy breeding population at Kaapse Hoop near Nelspruit) with only about 2 or 3 birds being seen.</p> <p>In KZN they are restricted to Natal Mistbelt Grassland (Endangered grassland), of which over 90% has been transformed, and only 0,3% is formally conserved. In addition, the mistbelt grasslands are</p>	A. Marchant (Ezemvelo KZN Wildlife: District Ecologist Ukhahlamba)	✓	✓	✓	✓	<p>In acknowledging the sensitivity of the receiving environment in terms of potential Blue Swallows and cranes (amongst others), a dedicated Avifauna Study was already initiated in the Scoping phase.</p> <p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>terribly fragmented and widely spaced. In these grasslands Oribi (Endangered) also occur although they are not restricted to Mistbelt grassland. Many other special Red Data animals are connected to these grasslands as well e.g. Serval, Striped Polecat, & Denham's Bustard to name but a few.</p> <p>Thus, to acquire & rehab an area (e.g. of timber) back to grassland and adjacent to an existing Blue Swallow site would be a MAJOR coup for nature conservation - Blue Swallow, Oribi, Bustards, & Natal Mistbelt Grassland, by extending the habitat. In addition, this will also have a positive impact on water production & quality.</p> <p>For your interest I enclose a report of mine re Blue Swallow monitoring in KZN (I haven't yet added in the figures for the 2013/2014 breeding season). I also attach 3 pics I took of this magnificent bird at Impendle NR - just to whet your appetite!</p>						
Source: Correspondence (Letter) – 05 September 2014							
178.	<p>BirdLife South Africa would like to commend Nemai Consulting for initiating the avifaunal study at this early stage of the project. During the EIA phase we would like to again stress that the following should be taken into consideration during the avifaunal assessment as well as in other aspects of the study:</p> <ul style="list-style-type: none"> • The possible disturbance of Blue Swallows during construction of the Water Treatment Works, especially options 1 & 2. • The likely disturbance of Blue Swallows during the construction of the balancing dams. <ul style="list-style-type: none"> ◦ These sites will need to be carefully monitored during the EIA phase in the summer to determine to what extent Blue Swallows use these various sites as foraging habitat and what impacts the loss of habitat is likely to have. • The possible impacts the construction of 	N. Theron and S. Gear (BirdLife South Africa)	✓	✓	✓	✓	<p><i>Refer to response provided for no. 177 regarding sensitive avifauna.</i></p> <p>Further consideration to be given to comments made by BirdLife South Africa by the avifaunal specialist during the EIA phase.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	underground tunnels will have on Blue Swallows nesting in the area. o Blue Swallows nest underground and excessive blasting and underground tunnelling with heavy machinery may negatively impact breeding birds.						
Source: Meeting at Baynesfield Club – 07 August 2014							
179.	Enquired about the impacts to sensitive bird species, such as cranes and blue swallows.	A. Carpenter	✓	✓	✓	✓	DH: The Avifauna Specialist Study was already conducted in the Scoping Phase and the results are presented in the Scoping Report. <i>Refer to response provided for no. 177 regarding sensitive avifauna.</i>

3.3 Freshwater and Estuarine Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
180.	Have studies been undertaken to assess the aquatic animals?	Chief: Kwabhidla Traditional Council	✓				DH: The Aquatic Assessment will only be conducted in the EIA phase.
Source: Meeting at Baynesfield Club – 07 August 2014							
181.	A major concern is the Reserve determination. Will these studies be incorporated into the EIA? We want to assess those studies thoroughly. Expressed concern over the process that is being followed for the Reserve determination.	R. Bulman (Coastwatch KZN)	✓	✓	✓		DH: EIA to consider the outcome of the Reserve determination. <i>Refer to response provided for no. 27 regarding impacts to the freshwater ecology.</i>
Source: Meeting at Baynesfield Club – 07 August 2014							
182.	I am pleased that there will be an Estuarine Study, as the uMkhomazi Estuary is very sensitive.	R. Bulman (Coastwatch)	✓				<i>Refer to response provided for no. 24 regarding impacts to the uMkhomazi Estuary.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
		KZN)					
Source: Meeting at Baynesfield Club – 07 August 2014							
183.	Enquired about the impact of the balancing dam and the spoil material from the tunnel to the wetland?	M. van Deventer (Baynesfield Estate)			✓		DH: The Offset Study, which will be undertaken during the EIA phase, will consider the loss of wetland associated the balancing dam. <i>Wetland Assessment and Delineation Study to be undertaken in EIA phase. Suitable mitigation measures to be identified (as required).</i>

3.4 Sediment and Sand Budget

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 04 September 2014							
184.	Coastwatch has reviewed the draft scoping report in which the Umkhomazi Water Project Phase 1 (UMWP-1) Raw Water Component is presented. The document is comprehensive in most respects however we request that the sediment load in the Umkhomazi River and how the proposed project will impact the sand budget be given urgent attention. The receiving environment has been assessed and with respect to soils (SR 12.4) it is reported that “ <i>The dam walls (Smithfield Dam and balancing dam) will trap sediment and could starve the rivers downstream of their normal sediment load. A lack of sediment in the water may result in increased scouring and erosion of river beds and banks downstream</i> ” and that - “ <i>the uMWP-1 may influence the uMkhomazi Estuary in terms of flow alterations, sediment regime, habitat alteration, water quality and overall ecosystem health.</i> ”	C. Schwegman (Coastwatch KZN)	✓				A technical study will be conducted to evaluate the impacts of the proposed Smithfield Dam on the sediment yield at the uMkhomazi River mouth and the long shore sediment load. This study will include the following: 1) A site visit will be conducted to inspect the river downstream of the proposed dam, the incremental catchment, river mouth and beach. Sediment samples will be collected for grading analysis. 2) A sediment yield analysis will be carried out of the catchment based on recent work for the SA Water Research Commission: Sediment yield prediction for South Africa – 2010 Edition. The sediment yield will consider the impacts of land use change, development in the catchment, the hydrology and the possible impact of the proposed dam. 3) The possible decrease in sediment loads in the sea due to the proposed dam will be investigated and will be expressed as percentage change of the known long shore sediment load. The possible change in beach volume immediately north of the mouth will be evaluated based on historical aerial

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p><i>This will need to be evaluated further as part of a dedicated estuarine specialist study. (SR 12.7.8)</i></p> <p>While the sediment regime in the estuary has been included in the estuary study which will be undertaken we find that the impacts of sediment on dam capacity and the ecology of the entire system are inadequately considered and require in depth study and analyses which would need to include the cost implications of beaches north of the Umkhomazi mouth being potentially deprived of sand.</p> <p>- <u>Dam Storage Capacity</u> The build up of sedimentation in the reservoir will reduce the dam's capacity and operational lifetime. In commenting on the BID (comment dated 18/11/13) Coastwatch noted a need for the project motivation to include comprehensive, independent analyses as to how our existing dams have performed over time and whether we are getting a fair return for the investment, taking into consideration the ecological impacts, contributions to GHGs, sand budgets etc. Coastwatch repeats its contention that the cost effectiveness of major in-stream storage dams needs to be considered.</p> <p>- <u>Alteration of river morphology</u> River impoundment will disrupt the transport of sediment along the river. This affects the morphology of the riverbed, downstream floodplains and coastal systems which could in turn increase flood risk and lower groundwater tables, thus affecting entire ecosystems.</p> <p>- <u>Sand delivery to the marine environment and beach replenishment</u> Sand budgets for the Umkhomazi river need to be looked at and reported on, including the potential impact which a reduction in sediment will have on beaches north of the river - the Durban beaches and associated tourism. It is our understanding that the</p>					<p>photographs, satellite images and expert opinion at desktop level of detail.</p> <p><i>AECOM (technical team) response: The impact of sediment deposition in the dam basin on the yield of the dam over the long term (30-year) has been adequately accounted for in the analyses undertaken as part of the Feasibility Study. The other issues raised in this regard, namely (i) the need for "comprehensive, independent analyses as to how our existing dams have performed over time and whether we are getting a fair return for the investment, taking into consideration the ecological impacts, contributions to GHGs, sand budgets etc."; and (ii) the "cost effectiveness of major in-stream storage dams" are both relevant but can only be addressed by undertaking focused research studies (e.g. by the WRC) and did not fall within the scope of the Feasibility Study.</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	CSIR undertook a sediment study (in the context of sand mining) for this river a few years ago, which revealed that to deprive the Umkhomazi of sediment would deprive the eThekweni beaches of sand replenishment, which in turn would greatly affect the tourist trade.						
Source: Meeting at Baynesfield Club – 07 August 2014							
185.	In Durban the beaches are only just managing with the existing sand budget. Siltation also shortens the lifespan of dams. Concerned about the impacts of the dam to the silt regime.	R. Bulman (Coastwatch KZN)	✓				<p>DH: Specialist study to be conducted during the EIA phase to assess the impacts of the proposed Smithfield Dam on the sediment yield of the uMkhomazi River.</p> <p><i>Refer to response to no. 184 regarding impacts to the sediment regime.</i></p> <p><i>AECOM (technical team) response: The comment is noted. However, to say that "siltation also shortens the lifespan of dams" is not really correct. Instead we <u>plan</u> for the impact of sediment deposition on the yield of dams (much like we plan for other long-term impacts such as upstream developments, climate change, etc.) and this was also the case for the analyses undertaken as part of the Feasibility Study.</i></p>

3.5 Water Resource Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 14 August 2014							
186.	As I said when we chatted earlier, it appears as if the design technicalities are 'cast in concrete' (based on my discussion with Neil van Wyk) and that the traditional approach of building a large enough dam to accommodate the sediments that will be delivered from the highly degraded catchment, has been allowed to perpetuate. This is	K. Zunckel	✓	✓	✓	✓	<p><i>Refer to response provided for no. 471 regarding biodiversity offsets.</i></p> <p>It is recommended that the promotion of ecological infrastructure be taken forward as part of biodiversity offset for uMWP-1. An example of a critical intervention to support ecological infrastructure is the rehabilitation of eroded areas and</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>very unfortunate as this forecloses on a number of opportunities. If I understand the terminology of the feasibility study correctly the reference to “measures to increase the water resource” as an alternative refers to some form of catchment management. Although my discussion with Neil left me with the sense that this has not been considered. However, the fact remains that the integrity of the Smithfield, and the Impendle, dam catchment is highly compromised which means that the planned infrastructure is at risk. From what I can see, little effort has been put in to understand the nature and extent of this risk. Noting that the climate change projections for the KZN Midlands are for increased incidents and intensity of rainfall events, and thus flooding, it would be in the interests of this development to ensure that the integrity of the catchment is significantly enhanced. If this was achieved then it would reduce the risk of increased sedimentation and the loss of storage capacity (also increasing the longevity of the infrastructure) as well as associated water quality issues (picked up on in the scoping report). Also it would reduce the risk associated with the increased incidents and intensity of flood events.</p> <p>I understand the water resource planners prefer to over-spec a dam so that they can provide ‘assurance of supply’ without having to incur the transaction costs and risks associated with catchment management. However, if one considers the multiple benefits associated with better land use and management, e.g. improved productivity and community resilience, as well as reduced risk to the infrastructure; it begins to make sense that a much long-term approach needs to be taken to planning, developing and operating a development such as this.</p> <p>Our approach with the Ntabelange Dam on the Tsitsa River in the Umzimvubu catchment was to</p>					<p>reinstatement of suitable ground cover in the uMkhomazi catchment. Another means of supporting ecological infrastructure is implementing an education programme in the catchment on soil conservation and sustainable land utilisation, which will include a monitoring programme.</p> <p>Climate change is being investigated as part of the Reconciliation Study that is currently underway.</p> <p><i>AECOM (technical team) response:</i> <i>The possible long-term impacts of climate change on the water resources (yields) of the systems that currently and may in future supply water to the KwaZulu-Natal Coast Metropolitan Area (which includes the proposed uMWP1) is currently being investigated as part of the Reconciliation Strategy. The investigation is based largely on research by the UKZN, Umgeni Water and the WRC. It is anticipated that this will be reported on at the next meeting of the Strategy Steering Committee early in 2015.</i></p> <p><i>However, it is important to note that the assessment of climate change impacts do not fall within the original scope of the uMWP Feasibility Study. As such, a proposal has been submitted to DWS for undertaking a climate change impact assessment focused, in particular, on (i) the magnitude of the 1:100-year flood and the resulting impact on the dam backwater analysis; and (ii) the magnitude of the RMF and the resulting impact on the selected spillway design and or level of the NOC. It was proposed that the assessment would be undertaken at a desktop level based on existing information from earlier research studies, in particular those recently undertaken by Prof Roland Schulze and others from the UKZN. Depending on the scope of the UKZN research in question, it was proposed that a number of key aspects would be taken into consideration, interpreted and recommendations provided on the application of the results to estimate the magnitude of design floods under a future climate. These are:</i></p> <ol style="list-style-type: none"> <i>1. The time horizon. It was proposed that the intermediate future time-horizon, (i.e. 2046 – 2065) would be applied as this falls within the planning horizon of the uMWP.</i> <i>2. Results from various Global Circulation Models (GCMs).</i> <i>3. Results based on various CO₂-emmission scenarios.</i> <i>4. Results based on various sources of downscaling data</i> 	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>assess the condition of the catchment in terms of its capacity to deliver watershed services (improved infiltration, reduced erosion and sediment production, improved water quality, increased flood attenuation capacity, etc.) and to factor this into the site selection process as a measure of risk. I think that the site had been pre-selected to a large extent, so am not sure of how much this risk assessment contributed to the final site selection. However, what I do know is that at the launch of the project, Pres. Zuma waxed lyrical about this being a world-first that the project would be investing in catchment restoration as part of the development package. If we are not able to influence the design of the Smithfield Dam by integrating ecological infrastructure and catchment integrity, then we need to at least integrate it into the 'assurance of supply' equation. Essentially this brings in significant opportunities to introduce the green economy into this development and affected communities.</p> <p>Lastly, I have attached the report that I put together for SANBI on the process that led up to the establishment of the uMngeni Ecological Infrastructure Partnership, as well as a copy of the MoU, for your information. I urge you to get in touch with John Dini and to get the uMWP-1 onto their agenda. I will also make sure that relevant stakeholders are made aware of your processes and register their interests.</p>						<p>(e.g. from the CSIR and CSAG at UCT).</p> <p>5. Various flood return periods.</p>
Source: Correspondence (Email) – 07 August 2014							
187.	The wetland areas lost on the proposed dam site need to be thoroughly assessed, bearing in mind forestry is under huge pressure to protect and maintain these wetlands, it would be extremely disappointing to see a big construction operation stuffing all this up.	P. Odell (NCT Tree Farming (Pty) Ltd)	✓	✓	✓	✓	<p>Wetland Assessment and Delineation Study to be undertaken in EIA phase. Suitable mitigation measures to be identified (as required).</p> <p><i>Refer to response provided for no. 471 regarding biodiversity offsets.</i></p>

3.6 Water Use and Supply

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
188.	In your presentation you mention that a large diameter underground tunnel will be constructed. Will there be any interruptions to households that rely on natural springs for livestock watering?	Mr Ngcobo	✓	✓			<p>KB: A Tunnel Boring Machine (TBM) will be used for the construction of the tunnel. The tunnel will be lined with concrete. Due to the depth of the tunnel there is a low likelihood of impact to groundwater. This will need to be assessed further prior to construction. If people are affected an alternative water source will need to be provided.</p> <p>DH: Smithfield Dam will probably be fenced of and the impacts to livestock that currently access the river will need to be evaluated.</p>
Source: Meeting with the Impendle Tenant Forum – 05 August 2014							
189.	We require water urgently. Why do we need to wait until 2023?	Mr Mthembu	✓	✓			<p>KB: The Sisonke District Municipality is mandated to ensure that the area receives water. The proposed Bulwer Dam, which will be commissioned sooner than uMWP-1, will not be able to supply the entire area.</p> <p>CIr Kunene: The Bulwer Dam is anticipated to be able to provide water within 3 – 5 years. Various studies need to be concluded first.</p> <p><i>Refer to response to no. 135 regarding water supply to the local community.</i></p>
Source: Meeting with the Impendle Tenant Forum – 05 August 2014							
190.	Will the local community be able to abstract water from the dam for irrigation purposes?	Mr Matshalala	✓	✓			<p>KB: There is a small likelihood that this can work for the community, because the water will be expensive and because it will need to be pumped.</p>
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
191.	Will water be provided to the local community by this scheme? Currently we do not have to pay for water, however, it is not stable. Will we need to pay if the water is provided from Smithfield Dam?	Mr Gumede	✓	✓			<p>HP: The treated water will be transferred to Mgeni Water Supply System. However, in this area there a small Water Treatment Works is planned to make provision for water supply to the local community. The Sisonke District Municipality is responsible for supplying water to the community.</p> <p>If a WTP is constructed communities will need to pay for the</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							treatment of water, here water additional to free basic water is applicable. <i>Refer to response to no. 135 regarding water supply to the local community.</i>
Source: Meeting at Baynesfield Club – 07 August 2014							
192.	Asked if spare water in the tunnel could be released into the stream and used for irrigation?	G. Gurney		✓	✓		KB: It may be a possibility. There have been objections in the past to put additional water into watercourses because of capacity constraints of these watercourses. At Spring Grove Dam the option to share in the project cost was offered to the irrigators but due to the high costs it was declined by the farming community. It is technically possible but it is very expensive water.
Source: Meeting at Baynesfield Club – 07 August 2014							
193.	How do you calculate the volume of water that must be released downstream of the dam? Will I still have the same volume of water available for irrigation if the balancing dam is built?	L. Antel			✓		HP: The water released from the balancing dam will be the same that enters the impoundment from the upstream catchment. Langa Dam will be filled from water transferred from Smithfield Dam and flood events from the incremental catchment. KB: Amongst others, the current water demand needs to be taken into consideration for the releases from the dam. For the system to operate effectively the balancing dam needs to be as full as possible.
Source: Meeting at Baynesfield Club – 07 August 2014							
194.	Nobody wants the WTW. What benefits are there for the local community? Noted that water is provided by the municipality but it is very expensive.	M. van Deventer (Baynesfield Estate)				✓	DH: Ordinarily, compensation is considered for individual property owners that are affected by project infrastructure. LA: Umgeni Water used to manage the water, however, due to changes in legislation the municipality is now in control. GS: The possibility of providing water to the local community from the transfer scheme needs to be considered further.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
195.	Expressed concern over the increase in water tariffs, as Rainbow Farms uses large volumes of water.	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)	✓	✓	✓	✓	KB: TCTA will most probably implement the scheme. All water transfer schemes have approximately a 20 year payback period. It is anticipated that some of the cost will be funded by government

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							and options for reducing the costs of water will be explored.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
196.	Will the additional users that will be supplied by the scheme be associated with additional income?	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)	✓	✓	✓	✓	HP: Treasury grants need to be considered. It needs to be borne in mind that that the low-income water users utilise less water. KB: Further information regarding the financial component of the study can be sourced for further reading.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
197.	Will the proposed pipeline also service the Umlaas Road area?	S. Joshua				✓	GS: No. LA: By supplying water to Durban the scheme will indirectly also benefit the local area.

3.7 Traffic, Road Network & Access

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 31 July 2014							
198.	From the previous correspondence it does not look like the National Road (N3) will be crossed. Is that correct? If you will be linking onto an existing pipeline south of the N3 we are not affected by the application. Please advise.	C. Landman (SA National Roads Agency SOC Limited)	✓	✓	✓	✓	Confirmed that the proposed potable water pipeline does not traverse the N3. However, require confirmation of the width of the national road reserve at the point where the pipeline links to the existing '57 pipeline in Umlaas Road. Requirements of SA National Roads Agency SOC Limited to be abided by, as relevant.
Source: Correspondence (Email) – 07 August 2014							
199.	As discussed in previous meetings, traffic on the roads would need to be adequately dealt with and not hinder or hamper our farm and transport operations.	P. Odell (NCT Tree Farming (Pty) Ltd)	✓	✓	✓	✓	<i>Refer to the following responses provided:</i> <ul style="list-style-type: none"> No. 34 - access roads; No. 29 - access control; No. 38 – road condition and EMPr provision; Traffic Impact Study to be conducted in the EIA phase to assess

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<i>inter alia</i> the impacts on the local road networks due to the project
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
200.	Is there a possibility that the road will be upgraded?	Mr Pewe	✓	✓			KB: Mitigation measures will be identified to manage the impacts to the roads that will be affected by the project. DH: Best practices to monitor and manage dust levels will be employed during construction.
Source: Meeting at Baynesfield Club – 07 August 2014							
201.	The impacts to the roads associated with the transportation of the sludge from the WTW need to be considered.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	DH: These impacts will be assessed as part of the Traffic Impact Assessment and EIA.
Source: Meeting at Baynesfield Club – 07 August 2014							
202.	The impacts associated with the use of the access road to the balancing dam with regards to the adjacent avocado trees need to be considered	M. van Deventer (Baynesfield Estate)		✓	✓	✓	DH: Alternative access roads have been identified. Impacts to be assessed further.

3.8 Visual, Air, Noise Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
203.	Will the noise that is generated during the construction of the tunnel adversely affect the community and livestock?	Mr Ngcobo	✓	✓			DH: Nuisance noise levels are not anticipated due to the depth of the tunnel, except at the tunnel access points. Vibration will also need to be taken into consideration and standards will need to be adhered to. KB: Noise will be generated from construction activities associated with other components of the project, such as the dam wall. DH: During construction noise, air and water quality will be monitored against the relevant standards.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<i>Refer to response provided for no. 48 regarding visual, air and noise impacts.</i>
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
204.	Noted current excessive dust levels. There is a clinic nearby and it can't function properly because of the dust.	Mr Pewe	✓	✓			Best practices to monitor and manage dust levels will be employed during construction.

3.9 Agriculture and Forestry

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 07 August 2014							
205.	From a Tree farming perspective the Umlaas catchment is closed for afforestation. Any removal of commercial plantation would need to be replaced elsewhere on the farm, conform with FSC policies and procedures, replicate the land lost in terms of terrain, distance from mill, area and site quality. The timber permits and water user rights would need to be amended.	P. Odell (NCT Tree Farming (Pty) Ltd)	✓	✓	✓	✓	Impacts to timber plantations, as noted in the Scoping Report, to be evaluated further during the EIA phase. Compensation measures also to be explored.
Source: Meeting at Baynesfield Club – 07 August 2014							
206.	Noted that the WTW Option 2 is located on 21 Ha of arable land.	M. van Deventer (Baynesfield Estate)				✓	DH: An Agricultural Impact Assessment will be conducted during the EIA phase. Amongst others, this will quantify the agricultural areas lost as a result of the proposed project and consider possible mitigation measures. It will also identify the preferred project options from an agricultural perspective.
Source: Meeting at Baynesfield Club – 07 August 2014							
207.	Surely the extra cut and fill associated with the WTW site near Umlaas Road would be more preferable than losing arable land and disrupting the lives of people in Baynesfield?	P. Odell (NCT Tree Farming (Pty) Ltd)				✓	DH: Noted that the WTW site near Umlaas Road is also located in a sugar cane field. Technically, this site remains less favourable.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 07 August 2014							
208.	To what extent does the new WTW option affect cultivated land?	M. van Deventer (Baynesfield Estate)				✓	DH: Approximately 80% of the site is cultivated.
Source: Meeting at Baynesfield Club – 07 August 2014							
209.	What is the area of arable land that will be lost at the balancing dam?	M. van Deventer (Baynesfield Estate)			✓		DH: Approximately 30% of the balancing dam's footprint is arable land. Timber land will also be affected. Most of the area affected is wetland.

3.10 Socio-economic Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 07 August 2014							
210.	The waste management is a concern, along with the visual impact, noise, traffic and additional public in the area which may have an influence on the crime rate etc. all this must be considered and provision made.	P. Odell (NCT Tree Farming (Pty) Ltd)	✓	✓	✓	✓	<p><i>Refer to the following responses provided:</i></p> <ul style="list-style-type: none"> No. 199 - impacts to traffic; No. 48 regarding visual, air and noise impacts; and No. 80 - safety and security. <p>The EMPr, which will be developed during the EIA phase, will include best practices to manage potential impacts dust (e.g. dust suppression, monitoring programme, etc.) during the construction and operational phases</p>
Source: Correspondence (completed Comment Sheet) – 15 August 2014							
211.	We wish to propose that you kindly inform the residents that will be affected by the project, the sooner they are aware the better. They would also need to be told where they will be moved too and how the preparations will be implemented. This would help them to know who will be affected. It would be nice to contact them while there is still time.	T. Dlamini	✓	✓			<p>The land to be affected by Smithfield Dam consists of scattered traditional settlement, which has been influenced by geographical, biophysical and land tenure features. It is estimated that 11 dwellings are located within the proposed FSL of the dam. Additional dwellings may be influenced once the buffer zone of the dam has been calculated.</p> <p>A Relocation Action Plan will need to be developed for the</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Thank you for having the meeting with the Chief/Inkosi of Kwa Bhidla, it shows that you now know the land belongs to him and not the people you have been communicating with who claimed the land was theirs. We would have not allowed the project to take place. You can now also tell them that you have spoken to the Chief and will deal with him going forward.						<p>dwelling that will be inundated by the Smithfield Dam.</p> <p>A Socio-economic Study and Social Impact Assessment will be undertaken as part of the EIA phase, and mitigation measures will need to be identified to manage the impacts to the social and economic environment.</p> <p>All affected landowners and tenants will be engaged throughout the execution of the EIA.</p>
Source: Correspondence (Email) – 18 August 2014							
212.	Thank you very much for your visit to Bulwer on the 06/08/14 at kwaBhidla Tribal Authority, we were very impressed about the dam. All what I need to tell you is that we are welcoming you guys with both our hands. One thing is please ensure that you let the dwellers know their status of moving in time before they start panicking because they need to know where they are moving to and please if you can forward me all the progress about the dam or any info you think we may need for any correspondence.	T. Dlamini	✓	✓			<i>Refer to response provided for no. 211 regarding relocation.</i>
Source: Meeting at Deepdale Community Hall – 05 August 2014							
213.	We would like more information regarding the safety of livestock and the members of the community during construction.	Mr Sokhele	✓	✓			DH: Best practices will be employed during construction to ensure the safety of the public and livestock. The construction site will be fenced off. No unauthorised entry to the site will be permitted.
Source: Meeting at Deepdale Community Hall – 05 August 2014							
214.	Will the people that need to be relocated be compensated?	Mr Sokhele	✓	✓			<p>DH: A Relocation Action Plan will be compiled for the dwellings that will need to be relocated. The standard will be that the new dwellings will be similar or better.</p> <p><i>Refer to response provided for no. 211 regarding relocation.</i></p>
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
215.	Enquired about the potential employment opportunities to the local community during the construction phase.	Mr Goba	✓	✓			KB: A large portion of the construction work will need to be undertaken by specialists and skilled people. DWA will, however, instruct the contractors to use local labour wherever possible such as for security. The positive economic impacts for the Mgeni Water Supply System also need to be taken into consideration on a strategic level. Employment opportunities may also be created

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							around the dam if it is opened up for recreational use in the future.
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
216.	Asked about the compensation that will be paid for the land affected by the project.	Mr Ngcobo	✓	✓			DH: Explained compensation process that will be followed for the project components. KB: The water tariff of the end users will increase to pay for the project, based on a pricing strategy.
Source: Meeting with the Emaqadini Community at Ncwadi Primary School – 05 August 2014							
217.	Requested further engagement regarding the legislation that governs land use and compensation.	Mr Pewe	✓	✓			DH: The matter regarding compensation for the tunnel servitude required clarification. Compensation process to be explained through the EIA. Further engagement welcomed. KB: Noted that the dam will capture flood water, which would normally flow to the sea. This is the only water that will be transferred and this water wouldn't be used by the local community.
Source: Meeting with the Impendle Tenant Forum – 05 August 2014							
218.	Suggested that the dam be fenced off for safety reasons during construction.	Mr Sokela	✓	✓			DH: During construction there will be security on the site and construction areas will be fenced off. All safety concerns will be addressed in the EIA. <i>In most cases DWA prefer fencing-off of the impoundment but this will be a once off event if it takes place.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
219.	Where will the dwellings affected by the dam be move to and who will be responsible for moving them?	Mr Dlamini	✓	✓			DH: 11 dwellings are located within the proposed dam's Full Supply Level. Additional dwellings may be located in the buffer zone. A Relocation Action Plan will be compiled for the dwellings that will need to be relocated. The standard will be that the new dwellings will be similar or better. The affected parties will be engaged with on a one-to-one basis as part of the Social Impact Assessment, and we will work through Traditional Council. All relevant protocols will be followed. <i>Refer to response provided for no. 211 regarding relocation.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
220.	Will dwellings that are not situated within the basin but are close to the dam also need to be relocated?	Mr Dlamini	✓	✓			DH: The buffer zone of the dam will need to be calculated and delineated to identify all the dwellings that will need to be relocated. <i>Refer to response provided for no. 211 regarding relocation.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
221.	Emphasised the need to know which dwellings will be affected and where will they be relocated to.	Mr Zondi	✓	✓			DH: Information on dwellings within the Full Supply Level of the dam provided in the draft Scoping Report. All affected parties will be engaged with as part of the EIA. Large map to be provided at the next meeting which shows the dwellings affected by the Full Supply Level and buffer zone. <i>Refer to response provided for no. 211 regarding relocation of dwellings.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
222.	How will graves be identified?	Mr Zondi	✓	✓			DH: In our experience, the best way to identify the graves with our specialist is to work through the Traditional Council. The entire project footprint must be inspected. Each grave will be recorded and we will try and identify the family members. Before any grave is relocated a formal process will have to be followed according to the governing legislation. <i>Refer to response provided for no. 96 regarding graves.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
223.	Will any dwellings be affected by the proposed tunnel?	Mr Dlamini		✓			HP: A Tunnel Boring Machine will be used to drill the tunnel below ground and there will be very limited surface impacts, except at the tunnel inlets and shafts.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
224.	Will there be any compensation paid to the Traditional Council for land that is required for the project?	Mr Gumede	✓	✓			DH: All relevant protocols and legal provisions with regards to compensation will be adhered to.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
225.	Will there be employment opportunities for the local community during the construction phase?	Mr Gumede	✓	✓			HP: A large portion of the construction work will need to be undertaken by specialists and skilled people. DWA will, however, instruct the contractors to use local labour wherever possible such as for security.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
226.	Will the dam be named Smithfield Dam? Maybe it should be named after a local hero.	Mr Gumede	✓				HP: The current name used for the proposed dam is based on the farm on which the dam wall is located. The future name still needs to be determined by the appropriate parties, a process that will be managed by DWS.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
227.	How will livestock or people that end up in the dam during floods be rescued?	Mr Mtshezi	✓				DH: During the construction phase the dam will be fenced off. During the operational phase there will be a dam operator with a boat which can be used for emergencies purposes. The DWS is implementing a Unique Positioning Number (UPN) system for all the dams in the country. Signage will be displayed at certain points around the dam, with the details of a toll-free number that can be used in the case of an emergency.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
228.	How will the body of someone who has drowned be retrieved from the dam?	Mr Mthembu	✓				DH: The UPN system should be used for emergencies. The response will be determined by the nature of the emergency or incident.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
229.	The Traditional Council needs to know which dwellings will be affected and where will they be relocated to. In addition, the council requires details of the extent of the dam to ensure that no one starts building in this area.	Mr Gumede	✓	✓			DH: 11 dwellings are located within the proposed dam's Full Supply Level. Additional dwellings may be located in the buffer zone. A Relocation Action Plan will be compiled for the dwellings that will need to be relocated. The standard will be that the new dwellings will be similar or better. The affected parties will be engaged with on a one-to-one basis as part of the Social Impact Assessment, and we will work through Traditional Council. All relevant protocols will be followed. <i>Refer to response provided for no. 211 regarding relocation of dwellings.</i>
Source: Meeting at Baynesfield Club – 07 August 2014							
230.	Enquired about the proposed mitigation of the impacts to the ecotourism and environmental education ventures at the Baynesfield Lodge during the construction phase, which entailed recreating the same facilities at Baynesfield Dam.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	DH: To be assessed further during the EIA phase. <i>Refer to response provided for no. 97 regarding the proposed mitigation of impacts to The Baynesfield Lodge.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 07 August 2014							
231.	Enquired about how the impacts to graves at Smithfield Dam will be managed	S. Vilakazi (DUCT)	✓				DH: Graves will be identified as part of the Heritage Impact Assessment, in consultation with the Traditional Council. All the requirements of Amafa aKwaZulu-Natali will be adhered to. <i>Refer to the response to no. 96 regarding the relocation of graves.</i>
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
232.	Enquired about the compensation process.	S. Joshua				✓	LA: Umgeni Water's servitude manager will engage with the landowner. The value of the land to be acquired for the pipeline servitude will need to be assessed. <i>Before construction commences, a negotiator from Umgeni Water will engage with the affected landowners to secure servitude rights. Compensation measures will need to be evaluated in close consultation with the affected parties.</i>

3.11 Public Participation

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 28 July 2014							
233.	We have asked our member Conservancies if they would like to have a meeting in the Midlands and will keep you informed.	J. Bell (Midlands Conservancies Forum)	✓	✓	✓	✓	Need for dedicated meeting to be confirmed by the Midlands Conservancies Forum.
Source: Correspondence (Email) – 29 July 2014							
234.	Please would you ensure that both the Midlands Conservancies Forum (secretary@midlandsconservancies.org.za) and Berg Conservancies Forum (Cobus Theron), as well as DUCT are kept informed and updated throughout this process. We will need to make our members aware of the project and the impacts on their land, water	J. Bell (Midlands Conservancies Forum)	✓	✓	✓	✓	Database of I&APs updated accordingly.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	supplies and the ecosystems that support this.						
Source: Correspondence (Email) – 21 August 2014							
235.	Thank you for the invitation. I would like to suggest that in your invitations and updates about the uMkhomazi Water Project you include Mr. Rob Faure who is currently the district conservation manager for uMgungundlovu district conservation area and my immediate supervisor. His email address is Rob.Faure@kznwildlife.com and cell number is 0849534938.	M. Gxashi (Ezemvelo KZN Wildlife)	✓	✓			Database of I&APs updated accordingly.
Source: Correspondence (Email) – 31 July 2014							
236.	Thank you for forwarding the Scoping Report (received dated July 2014) for the above-mentioned application to Ezemvelo KZN Wildlife (Ezemvelo) for review and comment. The receipt of this document is hereby confirmed. Ezemvelo's IEM Section is presently handling a high volume of applications with significant biodiversity issues. In light of the high volume and complexity of the projects, Ezemvelo's comments on the above-mentioned project may be delayed by approximately two months, although we will strive to limit the delay as far as possible. Please direct any queries or concerns in this regard to the IEM Coordinator, Mr Andy Blackmore, on 033 845 1356 or Andy.Blackmore@kznwildlife.com. Kindly provide shapefiles or KML files for the abovementioned application, as the project covers a large footprint.	P. Langazane (Ezemvelo KZN Wildlife)	✓	✓	✓	✓	Shape files and KML files provided, as requested, for the entire project footprint.
Source: Correspondence (Email) – 07 August 2014							
237.	Thank you for hosting the meeting today. As a member of the community, a representative of NCT and as indicated in the meeting we are opposed to this water project in the Baynesfield area.	P. Odell (NCT Tree Farming (Pty) Ltd)	✓	✓	✓	✓	Various options to meeting the project's objectives were considered during previous studies, which eventually lead to the identification of alternatives to be investigated as part of the Feasibility Study. Motivation for the site selection of the project infrastructure options is included in the Scoping Reports.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>There is absolutely no benefit from this project to NCT, Baynesfield Estate and the Baynesfield community. The project only has a negative impact as mentioned by numerous members attending the meeting.</p> <p>Option 3 (Water treatment works) is the most practical although not supported or encouraged.</p> <p>Lastly and in support of Myles, the community needs to see themselves benefitting from this project and whilst laws are in place to govern such benefits, the project steering committee needs to look at solutions to benefit those affected.</p> <p>Understandably this project is dynamic and thus as it proceeds, further issues may be raised and will need to be dealt with.</p>						<p>Possible benefits of the project to the Baynesfield community to be considered further during the EIA phase.</p> <p><i>Refer to the further responses provided for no.48 and 64.</i></p>
Source: Correspondence (Email) – 01 August 2014							
238.	<p>With this e-mail we as DUCT would like for you to please us put on your database of interested and affected parties for the above mentioned development. Secondly, please could you forward us the Draft Scoping Report and all other relevant environmental docs so we can quickly acquaint ourselves with what environmental control measures have been stipulated and the rehab procedures that are in place.</p>	S. Vilakazi (Duzi-uMgeni Conservation Trust)	✓	✓	✓	✓	<p>Details of DUCT representatives included in database of I&APs.</p> <p>The Scoping Reports are available for downloaded from the project website - www.dwa.gov.za/Projects/uMkhomazi/documents.aspx. A CD containing the draft Scoping Reports was also couriered to DUCT.</p> <p>Note that we are only in the Scoping phase and no specific management requirements and rehabilitation measures have thus been identified yet. These measures will only form part of the EIA Reports, with specialist input.</p>
Source: Correspondence (Email) – 07 August 2014							
239.	<p>I would like to request copy of the form that was distributed in yesterday's meeting at Hlanganani (Bhidla) regarding the Smithfield Dam project, I am a citizen of the area. I will be calling you as well for clarity on some of the points.</p>	S. Sokhela	✓	✓			<p>Please find attached the Comment Sheet and the Executive Summary (Zulu version), which were distributed at the meeting.</p> <p>Any further information that you may require can be sourced from the project website - www.dwa.gov.za/Projects/uMkhomazi/documents.aspx. Please let me know if there is anything else that we can assist with.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 08 August 2014							
240.	<p>Thank you for the information, I will complete the form and return it back to you.</p> <p>My concern is that the citizens of Bulwer area are not well informed of the proposed project and how It will affect them. Public hearings were not properly conducted, if there were any therefore we as citizens are not granted a fair chance to know more about the project and to table any issues that we feel may arise or to make recommendations on the proposed plan.</p> <p>From my experience as a person born and bred there, we live in an area where the access to the internet and other infrastructures is a problem therefore it not beneficiary to community to post the information on the internet because they do not have means to access them. I think public hearings should be announced on a national radio like Ukhozi FM and they should be done on a Friday or weekends as this will allow people who are working far from homes to arrange and attend, so far the majority of the community is not represented. I will make my recommendations/comments and return it next week.</p>	S. Sokhela	✓	✓			<p>We appreciate your comments.</p> <p>It is our intention to grant all Interested and Affected Parties a fair opportunity to become involved in the Environmental Impact Assessment (EIA). Below follows an account of the measures taken to involve the community around Smithfield Dam, and are in accordance with the requirements of the EIA Regulations (2010):</p> <ul style="list-style-type: none"> • The western portion of the project area, including Smithfield Dam and the first ± 21 km of the tunnel, falls under Traditional Authority and state land. To date all engagement with the communities surrounding Smithfield Dam have thus taken place through the formal communication channels, which are via the Traditional Authorities, Councillors, Municipalities and relevant government departments. • We acknowledge that the internet is not the ideal medium to make information available to the communities surrounding Smithfield Dam. Apart from the project website (www.dwa.gov.za/Projects/uMkhomazi/default.aspx), hardcopies of the Drat Scoping Reports were lodged at the following venues: <ul style="list-style-type: none"> ○ Baynesfield Club; ○ Beaumont Eston Farmers Club ○ Bulwer Public Library; ○ Richmond Public Library; ○ Hopewell Public Library; ○ Camperdown Public Library; ○ Baynesfield Estate; ○ Emaqadini Traditional Council Offices; ○ Deepdale Community Hall; ○ KwaBhidla TC Offices. • Advertisements were placed in the following newspapers as notification of the review of the Draft Scoping Reports and the public meetings: <ul style="list-style-type: none"> ○ The Star (English); ○ The Witness (English); and ○ Isolezwe (Zulu).

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE															
			Smithfield Dam	Tunnel	Balancing Dam																	
							<ul style="list-style-type: none"> The following public meetings were convened around the Smithfield Dam area, which were attended by more than 250 people in total. The venues were suggested by the Traditional Authorities. Note that additional meetings were held in the eastern part of the project area. <table border="1"> <tr> <td>05 August 2014</td> <td>09h00 – 11h00</td> <td>Ncwadi Primary School</td> </tr> <tr> <td>05 August 2014</td> <td>12h00 – 14h00</td> <td>Deepdale Community Hall</td> </tr> <tr> <td>05 August 2014</td> <td>14h30 -16h30</td> <td>At the soccer field (± 1km from Deepdale Station turn-off)</td> </tr> <tr> <td>06 August 2014</td> <td>10h00 – 12h00</td> <td>KwaBhidla Traditional Council Hall</td> </tr> <tr> <td>06 August 2014</td> <td>13h00 -15h00</td> <td>KwaZashuke Traditional Council Hall</td> </tr> </table> <p>We welcome your suggestions for additional means of notification and will consider them further.</p> <p>Please contact me for any queries that you may have or for any other comments that you would like to raise.</p>	05 August 2014	09h00 – 11h00	Ncwadi Primary School	05 August 2014	12h00 – 14h00	Deepdale Community Hall	05 August 2014	14h30 -16h30	At the soccer field (± 1km from Deepdale Station turn-off)	06 August 2014	10h00 – 12h00	KwaBhidla Traditional Council Hall	06 August 2014	13h00 -15h00	KwaZashuke Traditional Council Hall
05 August 2014	09h00 – 11h00	Ncwadi Primary School																				
05 August 2014	12h00 – 14h00	Deepdale Community Hall																				
05 August 2014	14h30 -16h30	At the soccer field (± 1km from Deepdale Station turn-off)																				
06 August 2014	10h00 – 12h00	KwaBhidla Traditional Council Hall																				
06 August 2014	13h00 -15h00	KwaZashuke Traditional Council Hall																				
Source: Correspondence (Email) – 12 August 2014																						
241.	<p>Thank you for your time in replying to my email I appreciate the reply.</p> <p>On my side, I feel that the 250 people attended those meetings are a drop in the ocean compared to the population, I therefore feel that further meetings need to be held and different medium of communication be used to invite people to such meetings.</p> <p>What I am trying to emphasize here is that the media of communication that is being used is not suitable for Bulwer citizens considering the settings of the area:</p> <ul style="list-style-type: none"> The Star and Witness are never available the 	S. Sokhela	✓	✓			<p>We appreciate your feedback and sound advice.</p> <p>As part of the EIA we need to identify the directly affected parties. In this case, there are currently 11 dwellings that have been identified that are situated within the proposed dam's Full Supply Level. We have already had some engagement with these parties and will meet with each of them individually as part of the Social Impact Assessment. In addition, the basin is used by the local community for communal grazing. Conveying the number of people that attended the meetings around the proposed dam site merely served to express the positive turnout from the immediate surrounding community.</p> <p>The extent to which we notify the greater community also depends</p>															

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>whole of Bulwer area. Even if you can go to shops now you will never find it on the shelves. Furthermore, the majority of citizens there are not literate, even those who went to school, they did not go that far with education. Therefore I would consider it as a supplement not as the primary means of communicating.</p> <ul style="list-style-type: none"> • Isolezwe is also hardly available in shops at Bulwer. Another point that you should note is that people there don't buy newspaper daily because they have to travel for it, therefore to hold-on on the fact that it was published does not suffice. • I don't want to start commenting about Traditional authorities and counselors but what I can tell you is that if it was not because of my efforts in providing with airtime to my mom Zodwa Maphanga to invite people in a very short space of time you wouldn't have the number of people that were there (Wednesday, 06 August 2014 KwaBhidla Traditional Council Hall). As a professional, the turnout of people in that meeting alone should have told you that they do not represent the population. It will be unreasonable to say that the number of people attended was a good representation. what I am requesting is that you announce these things on Ukhozi fm in particular because it is listened by most people in the area. The structures that you have used so far are not effective for a fair chance to all people. • Traditional authorities and counselors do not have resources to contact all people except calling them one by one. (I am not blaming this to you but I am alerting you of the challenges facing those people when they have to invite people) • As additional means, Is it possible for small presentations to be done In churches (Few minutes after church services) where you will have at least a number of people gathered together, schools- during school hours this help for the message to be distributed by kids to the 					<p>on the nature of the potential impacts of the project. We take note of your suggestions for additional engagement. The measures explained to notify the community are dictated by the EIA Regulations. We are also mandated to engage with the community via the Traditional Council and Councillors. However, we are happy to also consider using Ukhozi FM for future notification as it will allow for a wider broadcasting of the project.</p> <p>Have you had the opportunity to review the draft Scoping Report? Do you have specific concerns regarding the project?</p> <p>I am happy to discuss these matters further with you.</p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>parents etc?</p> <p>I appreciate the developments that are being proposed and I am not raising these points because I'm opposing the project but I am bringing them to your attention because I have a better understanding and experience of the area than you might have and I'm raising them to help you with your planning over and above the EIA requirements and this should help you to identify and close the gaps happened in your approach and planning.</p>						
Source: Correspondence (Email) – 01 September 2014							
242.	<p>I understand that you are the Project Manager for the EIA for the uMkhomazi Water Project. I realise that the EIA is well underway, however, I would still like to request that we be registered as an Interested and Affected Party. I am from the Economic Planning Programme of the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs. You may have already been liaising with my colleagues at KZN Environmental Affairs, but we would like to be registered as we view matters more from an economic development perspective.</p> <p>Please add me to your mailing list for further correspondence on this EIA process.</p>	L. Ndlovu (KZN EDTEA)	✓	✓	✓	✓	Database of I&APs updated accordingly.
Source: Correspondence (Email) – 03 September 2014							
243.	<p>Please e-mail me the presentations made at the abovementioned meeting. I will also appreciate the 1:50000 maps (PDFs and as well GIS) and/or any other maps or data pertaining to this project. You also mentioned that there is a website where some of this information can be obtained, kindly provide me with the address of this website.</p>	M. Luthuli (Chief Town Planner Harry Gwala District Municipality)	✓	✓	✓	✓	<ol style="list-style-type: none"> 1) The presentation is very large. I'm forwarding the EIA presentation to you via a bulk attachment website. Let me know if you also require the technical presentations of the engineers. 2) Please find attached the shape files and kml files for the Raw Water and Potable Water components of the proposed uMkhomazi Water Project Phase 1. I've also attached a map with all the components contained in the aforementioned files, for referencing purposes. 3) The project website is www.dwa.gov.za/Projects/uMkhomazi/documents.aspx.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Impendle Tenant Forum – 05 August 2014							
244.	Many of my concerns have already been addressed. Noted that there had recently been community unrest in the area as the people had not been properly informed about the project, however, now they are satisfied. I only received an invitation for the public meetings near Baynesfield. Requested to be invited to all future meetings.	Cllr Kunene	✓	✓			DH: The councillor will be invited to all community meetings. <i>Note: community unrest refereed to pertained to employment opportunities during the geotechnical investigations.</i>
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
245.	Thank you for the presentations. We now understand the project. This is KwaBhidla Traditional Council head office and all information regarding this project must be sent here.	Mr Dlamini	✓	✓			Request to be adhered to. Formal communication channels to be abided by.
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
246.	Why is there such a short period for commenting on the draft Scoping Report?	Mr Nsimande	✓	✓			DH: The 40-day public review period for the draft Scoping Report is in accordance with the EIA Regulations. The final Scoping Report will also be lodged in the public domain, as well as the draft and final EIA Reports. Amongst others, we will notify the community through the communication channels established with the Traditional Council.
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
247.	Requested the project website details.	Mr Nsimande	✓	✓			DH: Website details provided. Noted that a copy of the draft Scoping Report is also kept at the Traditional Council offices which contains maps of the area.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
248.	Requested 100 copies of the Executive Summary of the draft Scoping Report, project pamphlets and Comment Sheets.	Mr Dlamini	✓	✓			<i>Documents subsequently couriered to Mr Dlamini.</i>

3.12 Property

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water	uMWP-1	RESPONSE
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			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
249.	How wide is the potable water pipeline servitude and how deep will the pipeline be?	E. Donaldson				✓	AD: The permanent servitude will be between 15 – 25m, the construction servitude will be between 30 – 40m and the depth will be about 4m. Farmers will be allowed to plant crops on the pipeline servitude provided that the activities do not impact on the pipeline.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
250.	The proposed pipeline servitude will impact on the industrial activities in the Umlaas Road area.	E. Donaldson				✓	AD: The permanent servitude will be narrower than the temporary construction servitude. DH: Impacts to be considered further.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
251.	Asked if any development can take place within the pipeline servitude.	S. Joshua				✓	AD: The servitude can be used for cultivation but no buildings would be permitted.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
252.	Noted that he is representing the owner of Lot 34 in Umlaas Road. The property is used for warehousing.	S. Joshua				✓	AD: We usually follow a road but this wasn't an option due to the width of the construction servitude.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
253.	SJ: If the pipeline runs along the boundary of two properties will the servitude be on both properties?	S. Joshua				✓	AD: The intention is to only impact on a single property. DH: Recommended that SJ engage further with the landowner and they should then indicate their preference to allow for further consideration by the project team.

3.13 Electrical Requirements

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 07 August 2014							
254.	How will electricity be generated for the operation of the WTW?	M. van Deventer (Baynesfield Estate)				✓	KB: The potential exists to generate electricity with a hydropower plant located on the conveyance structure just upstream of the proposed WTW.

3.14 Indigenous Knowledge and Cultural Beliefs

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with the Kwabhidla Traditional Council – 06 August 2014							
255.	Warned that there is a large snake in the area.	Mr Dlamini	✓				DH: Confirmed that this cultural belief has also been expressed at other public meetings in the area. There is no scientific basis for this conviction. However, the matter will be assessed during the EIA.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							
256.	There is a white bull and a large snake in the river.	Mr Mthembu	✓				DH: Confirmed that this cultural belief has also been expressed at other public meetings in the area. There is no scientific basis for this conviction. However, the matter will be assessed during the EIA.

3.15 Proposed Infrastructure

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 04 September 2014							
257.	We look forward to receiving information on the studies which will influence the placement of the infrastructure components required by Umgeni Water i.e. - A Water Treatment Works (WTW) in the uMlaza River valley; and - A gravity pipeline from the WTW to the Umgeni Water bulk distribution reservoir system, below the reservoir at Umlaas Road.	R. Bulman and C. Schwegman (Coastwatch KZN)				✓	Specialist studies to be included in the EIA Report.
Source: Meeting with the Kwazashuke Traditional Council – 06 August 2014							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
258.	Can a bridge be built to connect the communities on the opposite sides of the dam?	Mr Dlamini	✓				HP: The aim of the uMWP-1 is for the DWS to provide water to the Mgeni Water Supply System. Any infrastructure affected by the project will need to be relocated. No pedestrian bridge currently exists in the proposed basin.
Source: Meeting at Baynesfield Club – 07 August 2014							
259.	Will the total extent of the WTW, including all the modules, be 21 Ha?	P. Rolland				✓	AD: Confirmed that this will be the full footprint of the WTW.
Source: Meeting at Baynesfield Club – 07 August 2014							
260.	Will a metal bridge over the Mapstone Dam not lure metal thieves and how long will it last?	R. Bulman (Coastwatch KZN)				✓	DH: Bridge to be safeguarded against theft.

3.16 Existing Infrastructure

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 31 July 2014							
261.	<p>We would dearly like to get sight of a drawing photographic image depicting your ventures interaction with any rail reserve or Transnet land for that matter. A topographical depiction will provide added value in determining to what extent we might have to accept storm water.</p> <p>Would you be so kind as to endeavour to favour me with such a drawing/photograph with a copy to Theo?</p>	E. Kettle (Transnet Freight Rail)	✓	✓	✓	✓	<p>Various maps showing project footprint and rail infrastructure provided.</p> <p>The Raw Water component affects railway lines as follows:</p> <ul style="list-style-type: none"> • Tunnel crossing – not considered to be an impact, as the tunnel will be deep below ground and should not have any surface impacts at the point where the railway line is crossed; • Options for the raw water pipeline cross a railway line in the Baynesfield area. Not sure if this railway line is redundant. <p>The Potable Water component affects railway lines as follows:</p> <ul style="list-style-type: none"> • Options for the potable water pipeline cross railway lines in the Baynesfield and Umlaas Road areas. <p>Please let me know if you require further information.</p>
Source: Correspondence (Email) – 12 August 2014							
262.	<p>Vicky is our risk specialist and might favour you with a detailed response, however I wish to draw your attention to the following:-</p> <p>The section has been closed for about seven years, so no operational requirements such as occupations and train notices are required.</p> <ul style="list-style-type: none"> • However installation of sleeves or pipes must conform as if the section was functional ie. top of pipe must be at least one and a half times the dia. below formation. • Downed Fencing to be resurrected. • Road surfaces to be reinstated. • All excavated material to be returned to trench and compacted to acceptable density. • Contaminated ballast must be screened. 	E. Kettle (Transnet Freight Rail)	✓	✓	✓	✓	Requirements of Transnet Freight Rail to be included in the EMP.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<ul style="list-style-type: none"> Side drains may not be blocked Sites to be rehabilitated to original or better condition on completion of work. 						
Source: Correspondence (Email) – 13 August 2014							
263.	I omitted to mention that In the event of installing smaller diameter pipes, they may not be positioned shallower than one metre below formation as they could be ripped up by heavy mechanical sifting/tamping machines. Also, there is no conventional signalling nor communication cables alongside track to worry about.	E. Kettle (Transnet Freight Rail)	✓	✓	✓	✓	Requirements of Transnet Freight Rail to be included in the EMPr.
Source: Correspondence (Email) – 29 July 2014							
264.	<p>We hereby acknowledge that we have received your application however see below requested document for your application to be processed accordingly: -</p> <p>You are kindly requested to submit six prints of detailed drawings/plans to this office containing the following information as soon as you attend proceeding with the above-mentioned crossing, in order that your application can be processed further.</p> <ul style="list-style-type: none"> The rail kilometre distance of the proposed crossing/encroachment. Destinations of the railway lines and road in the area. A cross section of the railway line at the proposed crossing. A north point. The method of construction. The number of electrification structures on each side of the proposed crossing. Numbers of lot poles (50 m interval pegs showing kilometre distances) when no electrification masts exist. The height above rail level to the lowest conductor (@ 50°C) must be shown where overhead lines cross the railway line. Detail drawing/s to have a site and locality plan 	Z. Buthelezi (Transnet Freight Rail)	✓	✓	✓	✓	<p>Requested information to be provided to Transnet Freight Rail following the detailed design phase.</p> <p>Requirements of Transnet Freight Rail to be included in the EMPr.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>and cross section at the point of crossing. Specifications and construction details of structures such as culverts must also be attached.</p> <ul style="list-style-type: none"> • Full description of property / roads adjacent to Transnet Ltd's land. • Any other specifications / information such as catchments areas, runoff volumes from this area should be included in the covering letter. • Lo grid lines and their values where possible as well as Lo coordinates for the route where it enters / exits Transnet Ltd land. 						
Source: Meeting at Baynesfield Club – 07 August 2014							
265.	Asked about the height of the WTW, as Option 2 is situated below an Eskom power line.	R. Moore				✓	AD: Discussions have been held with Eskom. The WTW Option 2 site can be reconfigured to avoid the power line.
Source: Meeting at Baynesfield Club – 07 August 2014							
266.	The relocation of power lines affected by the project needs to be considered at an early stage, based on similar problems experienced with other projects.	R. Moore	✓	✓	✓	✓	<p>DH: Noted.</p> <p><i>Electrical infrastructure affected by the project footprint is documented in the Scoping Report, and will be assessed as part of the EIA. A separate EIA will be conducted for new electrical infrastructure required for the operation of the transfer scheme.</i></p>

3.17 Planning

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 01 September 2014							
267.	Attached please find a resolution taken at a meeting of the full Council held on 29 August 2014, which is self-explanatory.	E. Donaldson and S.M. Dondo (Mkhambathini Local				✓	1. The WTW Option 3 is located on the western boundary of the Mkhambathini Local Municipality, which is approximately 10km to the south-west of the development node in Umlaas Road. The preferred site for the WTW will only be identified in

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<ul style="list-style-type: none"> • The application by the Department of Water Affairs for environmental authorisation to implement the uMkhomazi Water Project, be supported in principle as the project is of national importance. • The appointed consultants be directed to incorporate into the report the following resolutions, namely: <ul style="list-style-type: none"> ○ The Water Treatment Works will not be located within the municipal boundary of Mkhambathini; ○ The proposed pipeline servitude will be more clearly demarcated so as to better determine specific impacts on landowners within the development node at Umlaas Road as well as to further assist the municipality in assessing applications for development rights and building plan submissions. ○ Specific details of the proposed reticulation through the wetlands on Portion 844 of the Farm Vaalkop and Dadelfontein No. 885 and Portion 41 Umlaas Road. ○ The traversing of the Transnet Multi-purpose Pipeline; ○ The extent of the area being reserved on Portion 41 Umlaas Road for the junction of the proposed pipeline and the existing western aqueduct to eThekweni; ○ Require Environmental Management Plan which details pre and post construction periods and outlines rehabilitative measures to be put in place. 	Municipality)					<p>the EIA phase.</p> <ol style="list-style-type: none"> 2. The Scoping Report for the uMWP-1 Potable Water component details all the properties affected by the alternative pipeline routes. Maps are also appended to the Scoping Report that show these routes on a smaller scale to allow landowners to establish the footprint of the project in relation to their properties. 3. All wetlands will be delineated during the EIA phase, which will include the wetland located on Portion 844 of the Farm Vaalkop and Dadelfontein No. 885 and Portion 41 Umlaas Road. Suitable mitigation measures will be identified to safeguard all wetlands. 4. Transnet Pipelines were notified of the proposed project. See response from T. Hadebe (Transnet Pipelines Servitude Management) under no. 93. Any specific requirements of Transnet for the crossing of their servitude will be incorporated into the EMPr. Best practices to safeguard existing infrastructure will also be included in the EMPr. 5. A 15 metre wide permanent servitude and a further 30 metre wide temporary construction servitude will be required for the potable water pipeline. 6. The EMPr will consider the entire project life-cycle (i.e. pre-construction, construction, operation and decommissioning). Adequate provision will be made in the EMPr for the rehabilitation of the construction footprint.
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
268.	For how long will the transfer scheme be sufficient to meet the water requirements?	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)	✓	✓	✓	✓	HP: Based on current water requirements projections (estimated at about 1.5% annual growth), the propose uMWP-1 should be sufficient until 2043, when the next augmentation scheme, most likely the uMWP-2 Impendle, should be implemented. During this period the water requirements will be assessed.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Vans Hotel (Umlaas Road area) – 07 August 2014							
269.	Is this the worst case scenario?	Dr S.B. Maharaj (Rainbow Farms (Pty) Ltd)	✓	✓	✓	✓	<p>HP: The feasibility scenario (water requirements, project layout and size, cost) is based on the best information available at this time. Any of these aspects may change during final design when more detail is available.</p> <p>KB: Consideration will be given to the mix of users that can pay or not. This will be presented to National Treasury based on a socio-economic assessment of the supply area.</p> <p>DH: Being a semi-arid country water costs are going to increase as similar schemes are implemented.</p>

3.18 Waste Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 07 August 2014							
270.	What will be done with the material that is generated during the construction of the tunnel?	A. Carpenter		✓	✓		KB: Spoil material from tunnelling would need to be disposed of at sites located at the tunnel inlet and central adit. Material generated at the tunnel outlet will be used in the construction of the dam wall of the balancing dam.
Source: Meeting at Baynesfield Club – 07 August 2014							
271.	What type of waste will be generated at the WTW and what will happen to it?	P. Rolland				✓	LA: Sludge generated during the operational phase of the WTW will need to be disposed of. Options under consideration include disposal to land to support an agricultural operation, disposal at a licenced landfill, and using it as additive for making bricks.
Source: Meeting at Baynesfield Club – 07 August 2014							
272.	Asked about the impact associated with disposing the sludge on land. Are these studies available?	E. Faber				✓	LA: The University of KwaZulu-Natal has conducted studies that have found that there are no significant adverse impacts to the soil. Water quality tests have also been undertaken and found no significant adverse impacts. It is assumed that the sludge will be

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							similar to what is generated at the Midmar WTW.
Source: Meeting at Baynesfield Club – 07 August 2014							
273.	Expressed concern regarding the management of sludge and the associated impacts.	R. Bulman (Coastwatch KZN)				✓	DH: Noted. Impacts to be assessed. <i>Potential impacts associated with sludge management are documented in the Potable Water Scoping Report and will be assessed during the EIA phase.</i>

3.19 Operation of the Scheme

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 07 August 2014							
274.	Expressed a concern that raw water will be lost as part of the transfer scheme.	G. Gurney	✓	✓	✓	✓	AD: No water will be lost during the operation of the scheme. <i>DWS response: The scheme and therefore the associated infrastructure will be designed to very high standards, and the technical team expects losses to be negligible.</i> <i>AECOM (technical team) response: The transfer scheme is a closed scheme, conveying water from the Smithfield dam in a close tunnel, to a pipe into the water treatment plant, from where it is transport in a pipeline to the existing system.</i>

4 COMMENTS AND RESPONSES – REVIEW OF FINAL SCOPING REPORTS

4.1 Alternatives

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 30 September 2014							
275.	<p>My name is Rishaad Cassimjee (son of Abdul Kader Cassimjee) and I draft this mail on behalf of my father (owner) of Lot 34, 35 and 38-2 Umlaas Road.</p> <p>This mail is in connection with the Umkhomazi Water Project (Phase 1), and I would like to clarify a few matters:</p> <ul style="list-style-type: none"> As per discussion with the professional engaged (Solomo Joshu) to complete our Alternate Proposal Report (APR) – he has communicated to me that he has spoken to you and that you were understanding in terms of his illness during the last few weeks which has resulted in a delay in the submission of our proposal report to yourselves. I would like to thank you for the extension to the initial deadline for the submission of our APR. We will be working immediately on getting this report through to you as soon as possible. Our aim is to have the report completed and mailed through to you. 	R Cassimjee				✓	Noted, thank you. We need to finalise the Scoping Report. Could you please submit your APR by 08 Oct, end of business.
Source: Correspondence (Email) – 06 October 2014							
276.	<p>Please find attached the following:</p> <ul style="list-style-type: none"> Alternate Proposal Report (APR), Annexure 1 – 4 (which must be read in conjunction with the APR) <p>*Please note that the as per inspection of the maps</p>	S Joshua & R Cassimjee				✓	Based on feedback received from Umgeni Water and the consulting engineer, we will consider the alternative suggested by you further in the EIA phase from a technical and environmental perspective. Suggested route adopted as Option 1E.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>in the original Umkhomazi Water Project Report, there was a mistake relating to ERF 2/38, this property was named incorrectly in some of the maps as 2/33.</p> <p>Kindly peruse through the attached reports and annexures and provide us with your thoughts and feedback?</p>						
Source: Correspondence (Letter) – 22 October 2014							
277.	<p>There are numerous water conservation and demand management strategies that need to be taken into account and implemented before this development is allowed to go any further. Without up-to-date proper investigations of other options we fail to understand how construction of Smithfield is the most viable option.</p> <p>SA Commission on dams recommendations need to be adhered to, which would eliminate doubts that the report is nothing but a white elephant and a waste of the staffs time and taxpayers money.</p>	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<ul style="list-style-type: none"> Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx). The uMWP is evaluated in the latest best practice as described in the ICOLD 2012 World Declaration signed by International Commission on large dams – refer to response in no. 163.
278.	<p>Scoping Conclusion</p> <p>The transfer scheme is deemed to be the most viable option to provide a large volume of water to fulfil the long-term water requirements of the Mgeni system, including the Reserve</p> <ul style="list-style-type: none"> How can this conclusion be made when feasibility studies are outdated either 15 years old or still to be conducted as part of the EIA? (Page 264) 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		The Feasibility Study commenced in 2011 and is earmarked to be concluded at the end of 2015. The technical information included in the Scoping Report is thus up to date.
Source: Correspondence (Email) – 07 November 2014							
279.	You will recall that when you met with our board, John Kennedy asked that you investigate if the balancing dam and tunnel outlet could be built further up the Baynesfield valley. Do you have any feedback re this request?	M. van Deventer (Joseph Baynes Estate (Pty) Ltd)		✓	✓		<p>Hi Myles, I forwarded your query to the technical team. They indicated that the request to move the Langa Dam site and the Tunnel Outlet site further out the Baynesfield valley had been investigated.</p> <p>The selected positions work for the requirements of the scheme at lowest cost. Any change will affect the cost substantially and provide technical problems which cannot be solved.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>Please note that the -</p> <ul style="list-style-type: none"> The Tunnel Outlet position and Smithfield Dam water levels must be in harmony. The Langa Dam and the Smithfield Dam positions must be in harmony. <p>Trust this provides sufficient information.</p>
Source: Correspondence (Letter) – 10 November 2014							
280.	<p>We act on behalf of Rainbow Farms, a landowner affected by the route of the pipeline. We refer to the draft Scoping report made available to us.</p> <p>Our Client's operations are extremely sensitive to biosecurity risks, as well as other disturbances. After raising concerns on behalf of our client earlier this year, representatives of Knight Piesold met with our client to discuss the re-routing of the pipeline to avoid impacting on our client's farms. Our client's focus is to ensure that the proposed projects do not impact negatively on its operations, which will entail the implementation of the route deviations agreed, as well as certain controls being put in place. These are more fully discussed below.</p> <p>Route: Figure 46 and Figure 47 from the Scoping Report [Potable Water] record the deviation to the route which was agreed in respect of portions 6 & 43 of the Farm No. 881, and portion 20 of the Farm No. 1174. Portion 0 of the Farm No. 30 is not referred to in the report, annexed is the route which was provided, kindly confirm that this has been incorporated (when printing this pdf document which was provided to our client, we note that an additional yellow line appears, running across some of the chicken houses on the property, kindly confirm that this is an error.</p>	L. Kelso (Eversheds on behalf of RCL)				✓	<p>This serves to confirm that the pipeline route shown in yellow in the attached map (first attachment) is the route Option 1 that is being assessed in the EIA. At this stage there is also a route Option 1D in this area that will also be assessed (refer to second attachment).</p> <p>We will reflect the change to the original route, which emanated from discussions with Rainbow Farms, in the EIA Report.</p> <p>Meeting held with Eversheds and RCL on 10 December 2015 to clarify options.</p>
Source: Correspondence (Email) – 10 November 2014							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
281.	<p>The outlet of the tunnel feeds into the Zinti Valley which is both a gazetted 600 ha. nature reserve viz. Zinti Nature Reserve and a Natural Heritage Site (I am not sure if the legal status of these sites still exist because T. Mbeki, in his wisdom was against such a classification).</p> <p>This area was set aside because of the presence of some endangered* animals, birds and plant species, namely</p> <p>a. duiker, reedbuck, bush buck, oribi*, african wildcat, serval, lynx, pangolin, porcupine and a leopard seen from time to time with a second leopard on one occasion.</p> <p>b. blue swallows*</p> <p>c. hilton daisies* and christmas bells* and numerous indigenous trees in the forests.</p> <p>Some years back a proposed Eskom powerline was re routed because of all the above.</p> <p>I was present at the Baynesfield meeting where you were asked to look at an alternate to the tunnel coming out into the Zinti Valley, that is rather to the Mntunzini Valley a short way up the Baynesfield Valley. Your comment to Myles referring to 'further out' the Baynesfield Valley makes me think that your technical department may not have looked at the correct spot, as the one we suggested is up the valley with not to much altitude gain. I mention this because of you stressing the importance of 'harmony' between the various dams, whatever that means.</p> <p>From the information available on the website I cannot pinpoint exactly where the tunnel starts on the Byrne Valley side of the mountain but if you look at my suggestion I am convinced that the tunnel would be significantly shorter into the Mntunzini Valley than into the Zinti Valley therefore the possibility of not only saving money but causing</p>	J Kennedy (Joseph Baynes Estate (Pty) Ltd)		✓	✓	<p>Could we please request clarity on the location of the Mntunzini Valley, which will allow the engineering team to provide a more comprehensive response. I've attached a map which zooms in on the eastern section of the uMWP-1 Raw Water study area, which shows the tunnel options, balancing dam options and raw water pipeline options.</p> <p>Also note that the terrestrial ecologist will assess the impacts of the project on the biodiversity associated with the Zinti Valley during the EIA phase. We have also engaged with Ezemvelo KZN Wildlife and BirdLife South Africa (amongst others) in this regard. In acknowledging the sensitivity of the receiving environment in terms of potential Blue Swallows and cranes, a dedicated Avifauna Study was already initiated in the Scoping phase.</p> <p>Feedback from Technical Team: Thank you for the query regarding the position of the tunnel outlet for the uMkhomazi Water project. The different options considered for the tunnel are explained below.</p> <p>The map below shows two of the tunnel options that were considered during optimisation of the raw water conveyance system for feasible EIA alternatives. Option 2 consists of a pressure tunnel which feeds water into the proposed Baynesfield Balancing Dam via a pipeline. Option 3 also includes a pressure tunnel feeding water into the proposed balancing dam, Langa Dam, via a short pipeline.</p> <p>The outlet of option 2 would be in the area assumed to be the Mntunzini/Mtunzini Valley, and the outlet of option 3 would be near to the Zinti Valley. The area of the Mntunzini/Mtunzini Valley has been assumed because we weren't able to find the location of this valley.</p> <p>The reasons that option 3 was selected as the preferable option are as follows:</p> <ul style="list-style-type: none"> • Option 3 is shorter than option 2. • The geotechnical and topographical conditions at Baynesfield Dam are unfavourable for a pipeline and water treatment works. Reasons also existed for not having this infrastructure further east. 	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>much less of a disturbance.</p> <p>There is approx. 150 ha. of open grassland in the Mtunzini Valley, more than enough to have a tunnel exit, a balancing dam and even possibly the water treatment plant with minimal disturbance particularly as there is very little wild life and plant life in that area. The residents who live below the area in question would not be inconvenienced by your works.</p> <p>I would really appreciate it if the technical chaps could prove me wrong by supplying aerial photos showing a comparison of the lengths of the two tunnel options.</p> <p>Please could you pass on this e-mail to the correct authorities so that it can be recorded with all the other comments.</p> <p><u>Follow up email (1 December 2014):</u> Many thanks for your interest in the alternate option. It is quite difficult, because of the lack of clarity of the map, to pinpoint the Mtunzini Valley. I will however describe how to get there so your technical people can see for themselves rather than just using aerial photos etc.</p> <p>You travel up the valley on the district road past the new piggery, past the school, past the Meyers Hoek entrance gate, past the quarry and the next turn left takes you into the Mtunzini Valley. There is a small settlement but drive through until the head of the valley which is where I envisage the tunnel to come out ie to the right of the road you are driving on but not up into the timber area.</p> <p>If this does not make sense then please ask Myles or Gary or Peter Odell from NCT to show you or whoever needs to visit.</p>					<ul style="list-style-type: none"> The cost of the Baynesfield Balancing Dam would be more than Langa Dam. <p><i>Refer to response to no. 349 for reasons why the Baynesfield Balancing Dam option was discarded.</i></p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	I have no doubt that this option will have a shorter tunnel thus enabling considerable savings.						
Source: Correspondence (Letter) – 16 November 2014							
282.	<p><u>Environmental Impact Assessment Process</u> 2. Project Alternatives Coastwatch restates its request for all the alternatives to instream impoundment to be fully investigated as stand alone measures or a suite of interventions, including, but not limited to:</p> <p>a) Off-stream storage; b) Catchment rehabilitation in the KwaZulu-Natal catchments; c) Wetland rehabilitation in the KwaZulu-Natal catchments; and d) Aggressive water loss 'detect and repair' in existing treatment and reticulation systems.</p> <p>We are of the opinion that the water management and utilisation crisis that is looming is dire. It is therefore foolish to compromise the long-term future functioning of the Mkhomazi system which is a source of Environmental Goods and Services, including fresh water reserves, for the sake of short-term gains in immediately available water.</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx).
Source: Correspondence (Letter) – 17 December 2015							
283.	<p>Thank you for meeting myself and Mr Alan Reddy from RCL Consumer Foods (Pty) Ltd (previously known as Rainbow Farms (Pty) Ltd) ("RCL") on the 10 December 2015. The purpose of the meeting was to confirm the various alignments of the pipeline relating to the uMkhomazi Water Project.</p> <p>RCL confirms that it has no objections to the alignment of the dark blue line shown as Pipeline Option 1C on annexure A1. However RCL has very strict protocols when it comes to the protections of its biosecurity during the construction and maintenance phases of the pipeline. RCL Foods will provide details during the EIA phase. Umgeni</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	Mitigation measures for accessing and conducting work on RCL properties to be included in EMP. Specific requirements stipulated by RCL can form part of servitude conditions, which need to be negotiated further with Umgeni Water.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Water and its contractors would have to confirm that the necessary protection measures can be implemented. The construction may have to occur in a phased manner to limit disruption to its operations.						
284.	RCL would like to have access to water from that pipeline once it has been established. Kindly investigate whether this would be possible.	A. Armstrong (Eversheds on behalf of RCL)				✓	This is a large diameter bulk pipeline and as part of the operating procedure of such infrastructure, Umgeni Water cannot provide individual domestic or reticulation connections of it.
285.	The green corridor reflected in Annexure A2 is not accepted as it dissects the Property Umlaas Road erf 41. The site has recently been rezoned and received an environmental authorisation for the development of a warehouse. We confirm that you are in agreement that this corridor must be removed from further assessment as it is not appropriate. Kindly provide us with an updated figure where the green corridor has been removed in order to satisfy RCL Foods and any potential developers of erf 41 that the pipeline will not be traversing that property.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>Although the pipeline route Option 1 (green corridor) is not preferred for technical reasons it is still reflected in the maps contained in the EIA Report as one of the alignment alternatives that were considered and assessed during the course of the EIA. This also serves to convey the overall pipeline route enhancement that took place in the Umlaas Road area following public participation and technical evaluations.</p> <p>Following the comparative analysis of all the alignment options, with input from the technical team and environmental specialists, the best practicable environmental option will be selected. This will include the compilation of a map showing only the preferred options for each of the project components. This information will be included in the EIA Report.</p>
286.	We attached Annexure A3 which provides two alternate alignments – depicted in blue and black. It was agreed that Umgeni's planning and engineering department would consider these alignments as possible alternatives. It would be appreciated if after your discussions you could revert to us regarding these alignments.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>Technical feasibility of new suggested routes assessed. Separate document compiled by Knight Piésold which includes the following:</p> <ul style="list-style-type: none"> • Overview of input received from RCL Foods in terms of the pipeline routes to date (based on affected properties); • Technical assessment of route alternatives suggested by RCL Foods; and • Description of new route, which takes into consideration the concerns raised by RCL Foods regarding the impacts of the pipeline on Erf 41 Portion 6. <p>The new route identified by Knight Piésold will be included in the EIA Report as a new feasible alternative for the pipeline route.</p>
Source: Correspondence (Email) – 28 January 2016							
287.	We note the comment to point 3 in the table below which refers to whatever route is accepted would be, in the view of the assessment practitioner, the best practicable environmental option. This	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 285.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	response does not definitively exclude the green corridor dissecting Erf 40 Umlaas Road. In discussions with Umgeni, it was confirmed that that route, whilst originally considered an alternative, would no longer be an option for consideration. We must place on record that that option cannot be accepted by RCL. However it does appear that the KP alternate route document does address this so we will not take issue with that response at this stage. RCL will require a definitive statement that erf 44 Umlaas road will not be affected as per the green corridor.						

4.2 Access

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 10 November 2014							
288.	It has been agreed that no construction may take place and no access will be granted within our client's biosecurity fenceline. Any access to the remainder of any site will be by prior arrangement with our client only. Names of the relevant personnel and equipment requiring access will need to be submitted in advance, and such access will be subject to our client's reasonable requirements, and will be monitored and controlled by our client's security. Further no poultry products, including eggs, chickens, turkeys, ducks, birds and the like, may be brought onto any of the farms.	L. Kelso (Eversheds on behalf of RCL)				✓	Mitigation measures for accessing and conducting work on RCL properties to be included in EMP. Specific requirements stipulated by RCL can form part of servitude conditions, which need to be negotiated further with Umgeni Water.

4.3 Agriculture

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 10 November 2014							
289.	<p>An increase in activity around our client's operations has the potential to have a severe negative impact on the production of those operations, both by way of increased bio-security risk, and as our client's chickens are sensitive to any kind of disturbance – which includes noise, vibrations / tremors, dust and interruptions. Examples of factors that need to be addressed when work is taking place in the vicinity of our client's operations are –</p> <ul style="list-style-type: none"> • Noise and dust are to be kept to a minimum; • No blasting to take place; • No interruption to the water supply; • Vermin (birds/rats/insects) not to be encouraged. <p>The EMPr for each of the projects will need to contain specific provisions to incorporate the necessary controls, and to prevent any impacts on our client's operations, and provision will have to be made for the implementation of the EMPr to be tightly controlled and monitored. The authority for this pipeline should not be granted without the final EMPr being made available to our client to enable it to ensure that its interests are adequately protected.</p> <p>Kindly ensure that we continue to receive all documents and correspondence relating to this matter.</p>	L. Kelso (Eversheds on behalf of RCL)				✓	<p>Mitigation measures for accessing and conducting work on RCL properties to be included in EMPr. Specific requirements stipulated by RCL can form part of servitude conditions, which need to be negotiated further with Umgeni Water.</p> <p>EMPr to be made available as part of public participation process, when the EIA Report is lodged in the public domain.</p>

4.4 Terrestrial Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 22 October 2014							
290.	<p>Past lessons Past lessons need to be referenced and avoided:</p> <ul style="list-style-type: none"> • Springrove Dam: <ul style="list-style-type: none"> ○ Plant rescue was last minute and rushed ○ Environmental offset implementation now doubtful due to lack of funds even though it is part of the condition of approval. In the case of Smithfield, offsets to be non-negotiable and budgeted for. 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>Search, Rescue and Relocation activities to be undertaken during the pre-construction phase.</p> <p>The EIA will consider the need for offsets further, following the completion of the relevant specialist studies.</p>
Source: Correspondence (Letter) – 14 January 2015							
291.	<p>I mentioned in my last e-mail that there was one last point I wanted to make.</p> <p>In correspondence dated 12/11/2014 you stated 'the exit of the tunnel for option 3 does not interfere with the endangered species as the tunnel is buried underground'. I would like to take issue and point out that with all the disturbance from the construction of the tunnel, pipeline and balancing dam who in their right mind would expect endangered species to hang around and all return happily some 4 years later. The disturbance from drilling, heavy vehicles carting away product from the tunnel, digging the pipeline and the actual dam building will frighten every living thing within kilometers of the Zinti Valley.</p> <p>I am very sorry that, from what I am led to believe, when investigations were started in 2012 landowners were not contacted to give input. By the time we had our first opportunity to comment in 2014 it was obvious that final decisions had been made and nothing in the world is going to change the proposed project.</p>	J Kennedy (Joseph Baynes Estate (Pty) Ltd)		✓	✓		<p>Feedback from landowners is of paramount importance in the EIA Public Participation process and it helps us to better understand the receiving environment. Don't mind the complaints, as they are often very constructive.</p> <p>With regards to the technical team's response to the interference with endangered species, we cannot deny the obtrusive nature of the construction activities associated with the project's infrastructure. As part of the EIA, we need to conduct the appropriate specialist studies (e.g. Fauna and Flora, Wetland and Aquatic, Visual, etc.) to establish the sensitivity of the surrounding environment and then provide the requisite mitigation measures to prevent, minimise or rehabilitate the impacts. Where the impact is permanent a form of offset may need to be assessed, if necessary. In acknowledging the sensitivity of the receiving environment in terms of potential Blue Swallows and cranes (amongst others), a dedicated Avifauna Study was already initiated in the Scoping phase.</p> <p>Since 2013 we have had a number of meetings with the Interested and Affected Parties to explain the project and to obtain input. Various new alternatives have been identified through public feedback which were assessed by the technical team and deemed as feasible, which included new sites for the Water Treatment Works, disposing of spoil material in the balancing dam wall (as</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	I cannot help feeling that any queries are now regarded as a pain in the rump judging from the tone of some of the comments from the technical chaps.						opposed to creating a large spoil site), new access roads, and deviations to pipeline alignments. Prior to our company's involvement, the technical team also engaged with members of the community as part of their Technical Feasibility Study. We will maintain open and fluid channels of communication with the public and we also hope that you will stay involved as the project continues through its lifecycle.
Source: Correspondence (Letter) – 11 December 2014							
292.	The Department of Agriculture, Forestry and Fisheries (DAFF) appreciates the opportunity given to review and comment on the Final Scoping Report (FSR) received on the 20/10/2014 for the above mentioned development. The department acknowledges that the comments previously issued on the 09 th of September 2014 are incorporated in the FSR, and will be addressed during the EIA phase. Further comments will be issued following the receipt and review of the EIA report together with the associated specialist studies.	N Sontanagne (DAFF)	✓	✓	✓	✓	Refer to responses to no. 175.

4.5 Socio-economic Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 21 October 2014							
293.	We are the owners of portion 6 of ERF 41 Umlaas Rd. I cannot find a report or plan on your website that indicates whether proposed uMkhomazi Water Project Phase 1 interferes or comes close to our land. Can you please confirm if this is the case.	R Lovemore				✓	Please see attached map, which zooms in on the eastern part of the project area and shows the alternative potable water pipeline route options as purple and green lines. Please contact me once you have had an opportunity to peruse the map.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<i>Follow up email (28 October 2014):</i> I cannot see an issue with the pipeline routes on our property but to be double sure please call me when you can. I am away until Monday so perhaps next week!						
Source: Correspondence (Letter) – 22 October 2014							
294.	<p>Past lessons need to be referenced and avoided:</p> <ul style="list-style-type: none"> • Springrove Dam: <ul style="list-style-type: none"> ○ People relocation was not to the satisfaction of the people relocated, nor was it done timeously. ○ People compensation was not completed. • Inanda <ul style="list-style-type: none"> ○ People live besides the dam without access to water: some are forced to bathe and wash clothes in the dam. 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>Relocation Framework Plan to be included in the EIA Report.</p> <p>As part of the feasibility study for the proposed Smithfield Dam, a desktop-level study was carried out to ascertain the following (further details to be included in the EIA Report):</p> <ul style="list-style-type: none"> • The current water sources being used by the communities surrounding the dam; and • The possibility of feasibly supplying these communities from Smithfield Dam in the future.
Source: Correspondence (email) – 26 October 2014							
295.	<p>This is a follow up to our telephonic conversation on the 23rd Oct 2014 at 09h:14 in relation to the uMkhomazi Water Project. As indicated to you earlier on Sappi has a large landholding in the KZN South Area that spreads from Underberg, through the towns of iXopo; Richmond and Highflats to the Natal South Coast area. We also have a big production plant in the South Coast area "Saiccor Mill". We are concerned about the impact of this intended project to the sustainability of our business in these areas as well as our mill production.</p> <p>Can you please enlighten us on the following:</p> <ul style="list-style-type: none"> • How is this water project going to affect our forest plantations? • Are we going to lose productive land to make way for this project if so how much and what areas would be affected? • How is the water level in the Ngudwini dam outside the Bulwer town on our land holding going to be affected? 	Mbeko Nkosana (Sappi)	✓	✓	✓	✓	<p>There are no plantations located in the Smithfield Dam basin so SAPPI will not lose any existing productive land. Land leased by NCT Forestry at the Baynesfield Estate will be affected by the project infrastructure.</p> <p>It is assumed that you are referring to Comri Dam. This dam is located upstream of the Smithfield Dam site. As such it will not be affected by uMWP. However, Harry Gwala DM are investigating the possibility of utilising the dam for local supply, depending on SAPPI's approval, so they may want to take up that issue directly with them.</p> <p>During the water resource analysis DWA made sure that Sappi Saiccor will not be worse off, and that the current situation will not be affected.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	We need to understand the impact on these aspects of our business now before the project begins. As this could have dire consequences to our business's sustainability and affect our stakeholders in the long run. Could you please furnish us with some insight on this project and the raised concerns?						

4.6 Climate

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 22 October 2014							
296.	<p>Climate The climate of Pietermaritzburg and the Smithfield dam site are vastly different and thus climate statistics from Pietermaritzburg cannot be used for the site as they will give inaccurate information.</p> <p>Climate change predictions need to be taken into account for not only the impoundment area but also downstream areas – the UDM have recently commissioned a study on climate change which should be referred to.</p>	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>As part of the uMWP-1 Feasibility Study the climatology at the proposed Smithfield Dam and Langa Balancing Dam construction sites was assessed. The variables considered included rainfall, evaporation and temperature.</p> <p>Climate change to be considered further in the EIA Report.</p> <p><i>Refer to response to no. 186 regarding the consideration of climate change.</i></p>

4.7 Water Resource Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 20 October 2014							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
297.	<p>A number of variations on river names are used and I do not have time to check on my knowledge of all scheme components.</p> <p>There is an official body responsible for the names of things in the country and the Surveyor General I understand uses the names approved by that body, so if it uses Mlazi (where in the area most people I have heard use the name Umlaas River) so I am not sure if Umlaza is the same and if I am making a seeming storm in a tea cup please ignore, I was just curious.</p> <p>I will give you another example: The minister Ronnie Kasrils attended the renaming of the Goedertrouw Dam to Lake Phobane. Even the sign board and numerous DWS officials use that new name. However, at that meeting he admitted to all present that this had not been properly done and that the name was therefore not official, yet we use it.</p>	C Tylcoat (DWS)	✓	✓	✓	✓	<p>We were notified that the following official river names should be used:</p> <ul style="list-style-type: none"> • uMlaza River (also known as the Mlazi River); and • uMkhomazi River (also known as the Umkomaas or Mkomazi River). <p>We will ensure that we consistently use the correct names.</p>
Source: Correspondence (Letter) – 22 October 2014							
298.	<p>DUCT concerns regard the potential impacts on river health and river water quality during not only construction but also post construction of</p> <ul style="list-style-type: none"> • the dam site; • the river downstream of the dam site; • the receiving river; • at the receiving point; • downstream of the receiving point; • other watercourses that will be effected and impacted by the scheme (e.g. those crossed by new roads and pipelines). 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓	✓	<i>Refer to responses provided for no. 27 regarding the assessment of impacts to the resource quality of affected watercourses.</i>
299.	<p>The Scoping Report seems to be scoping the project more from a water supply point of view than from the point of the environmental impacts and impacts to river health.</p> <p>Water Quality seems to be more of a concern that</p>	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		Potential impacts to surface water in terms of hydrology, existing water use, ecological status, aquatic biota, water quality, riparian habitat, wetlands and the estuary discussed in Section 12.7 of the Scoping Report. Significant impacts also discussed in Section 14, which are carried forward into the Plan of Study for the EIA (Section 16).

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	River Health – the former has more to do with consumption acceptability and the latter with environmental conditions of rivers themselves.						Aquatic Assessment to be conducted in the EIA phase.
300.	Table 33 – there is nothing to indicate support for natural areas along river	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓	✓	<p>Table 33 in the Scoping Report deals specifically with the water use estimates for the study area, which was considered for planning purposes and understanding water use requirements. Water requirements for the aquatic ecosystem is covered in Section</p> <p>Water quality and quantity released from Smithfield Dam and the balancing dam will need to comply with the requirements of the Ecological Reserve for both the affected rivers and the uMkhomazi Estuary. The Reserve requirements will ultimately feed into the licensing process of DWS and the operation of the system. Findings from the comprehensive Reserve determination for the Mzimkhulu River will be incorporated into the EIA Report.</p>
301.	<p>The Smithfield Dam MUST comply with the requirements of the Ecological Reserve for both the affected rivers and the uMkhomazi Estuary</p> <ul style="list-style-type: none"> • DUCT submitted comment to the effect that the 2012 WMA study for the Comprehensive Reserve (referred to on page 160 of the Scoping Report) had such a paucity of EWR sites that, unless redressed, the health of the rivers of this WMA would be negatively impacted. As yet we await a response. <ul style="list-style-type: none"> ○ We thus feel that it is premature to base the Scoping Report findings on an incomplete WMA study. • Notwithstanding this, the study indicates that The Mkomazi River is dominated by nonflow related impacts (mainly forestry and rural settlements with informal agriculture) and we feel that the construction of the Smithfield Dam will exacerbate these impacts. 						<p><i>Refer to response provided for no. 300 regarding the Reserve (Ecological Water Requirements (EWR)).</i></p> <p>Information from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA (2014) to be included in the EIA Report.</p>
302.	<p>Ecological Goods & Services Due to the fact that River health is a vital driver of the standard of Ecosystem Goods and Services (EGS) that a river delivers (the better the rivers health, the higher is the delivery of EGS), the Ecosystem Goods and Services that the Umkomaas</p>	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>Amongst others, the Ezemvelo KZN Aquatic Biodiversity Plan and Freshwater Biodiversity Priorities, as well as the DWA River Health Programme results, will be further scrutinised by the relevant specialists.</p> <p>The concept of “ecological infrastructure” (i.e. functioning</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>River delivers should be researched and taken into account for</p> <ul style="list-style-type: none"> Catchment and river management; and A benchmark prior to the start of construction. <p>This subject has been mentioned by President Zuma and is thus a precedent (an E.Cape Dam mentioned in the State of the Nation address in which the budget for the dam included catchment rehab and management).</p>						<p>ecosystems, within landscapes, that provide environmental services which contribute positively to the economy and human welfare) within the context of the EIA study area will be investigated in the EIA phase.</p> <p><i>Refer to responses provided for no. 186, 302, 471 and 507 regarding Ecological Infrastructure.</i></p>
303.	<p>Addressing negative Impacts</p> <p>We are concerned as to how the negative impacts below will be addressed as they are unavoidable wrt large impoundments as they are an integral part of the dam management, they are also an integral part of the disruption to river health downstream of large impoundments</p> <ul style="list-style-type: none"> Scouring (Page 164): A dam scour is recommended to be constructed to be able to release dam bottom water during high summer inflows. Sleeve valves with dispersers are recommended to oxygenate the water used for environmental releases). The issue of solid matter needs also to be dealt with. Turnover Temperature differences impacts on area below dam wall Release flows (incorrect or non-existent) Water quality discussions on pages 163 only focus on <ul style="list-style-type: none"> the water quality in the dam and not of the water quality of the receiving rivers. How this will impact the river health of the receiving rivers The focus should be on the quality implications on the river for environmental reasons, not focusing on the impoundment for consumption reasons. 	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>River releases from Smithfield Dam will be via a multi-level intake tower and conduit, enabling water to be drawn off near the surface of the reservoir (water quality management). The outlets will be controlled with sleeve valves, enabling a wide range of flows to be released.</p> <p>Further details of the dam outlet works (including dam intake tower, tunnel and outlet valve house) to be provided in the EIA Report.</p> <p>Aquatic Assessment to be conducted in the EIA phase to address these matters further.</p> <p><i>Refer to responses provided for no. 300 regarding the Reserve (EWR).</i></p>
304.	Page 125 lists potential impacts / implications, however there is no mention of environmental	P.S. Rees (Duzi Umgeni)	✓	✓	✓		Dimensions of project infrastructure provided in the Scoping Report (see Section 10). Total area of watercourses (including

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>impacts.</p> <ul style="list-style-type: none"> What is the total area to be disturbed for the entire scheme – iow all dams, tunnels, pipelines, gauging weirs, outfalls etc etc etc. There is no mention of the slalom canoeing course being considered downstream of the dam which will entail concreting & or diverting a section of the river. 	Conservation Trust)					<p>wetlands) to be affected by the project's collective footprint to be assessed as part of the Aquatic Assessment to be conducted in the EIA phase.</p> <p>Note that the slalom course was discarded as it was not deemed to be feasible.</p>
305.	<p>Supporting Studies & Ecological Infrastructure Smithfield Dam was planned as a reconciliation strategy +-30 years ago. Studies were done 15 years ago. Much has changed in the interim and the following thus needs to be included with priority:</p> <ul style="list-style-type: none"> The introduction of the concept of ecological infrastructure. It is essential that water resource planners go back to the drawing board and that the desirability and design of the dam takes the concept of Ecological Infrastructure principles into account. This could potentially result in the reduction of the dam footprint. As part of the uMWP-1 Feasibility Study the catchment sediment yield was estimated and the consequent reductions in future storage capacity were determined. <ul style="list-style-type: none"> How many years ago was this study What has changed in the interim. Properly researched & planned catchment management will minimise / reduce this problem Scouring dumps silt & rotting vegetation into the river, negatively impacting the river. A different way of dealing with the muck that collects in the dam would be the better management of the dam catchment thus minimising the silt entering the dam. Measures to maintain the longevity of the dam in terms of siltation and eutrophication (pages 163 & 163 of Scoping Report) <p>We look forward to an in depth discussion and</p>	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		<p>The Sediment Yield Assessment Report is dated 2013.</p> <p>Impacts of the project on the sediment regime to be considered further in the EIA Report. <i>Refer to response to no. 184 regarding impacts to the sediment regime.</i></p> <p><i>Refer to responses provided for no. 186, 302, 471 and 507 regarding Ecological Infrastructure.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	research on all possible available up to date alternate options.						
306.	Gauging Weirs All the gauging weirs are located in river FEPAs. Gauging weirs should be re-located so that they are outside of FEPA's.	P.S. Rees (Duzi Umgeni Conservation Trust)	✓	✓	✓		Aquatic Assessment to be conducted in the EIA phase to assess the impacts to river FEPAs.
Source: Correspondence (Letter) – 16 November 2014							
307.	<p>Further to comment dated 4 September 2014 Coastwatch is compelled to restate its concerns relating to the raw water component of the UMWP-1, the following issues not receiving due regard in the EIA process.</p> <ul style="list-style-type: none"> The Mkhomazi is the last un-dammed river in the province. This is a significant consideration for the "no go" option; South Africa's position as a signatory to the World Convention on Dams; The identification of the Mkhomazi estuary as one worthy of conservation due to significant biodiversity; The finalisation of the northwards extension of the Aliwal Marine Protected Area which will include the estuary; Catchment management which is required to enable the ecosystems to provide continuous flows of clean water to downstream users, let alone the impoundment; The studies done for the EIA for the dam overlook significant impacts from sandmining and development leading to sedimentation, eutrophication and pollution. <p>The launch of Operation Phakisa is fast-tracking the sustainable use of the oceans making it essential to consider river systems from source to sea in an integrated manner.</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	<ul style="list-style-type: none"> Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx). The uMWP is evaluated in the latest best practice as described in the ICOLD 2012 World Declaration signed by International Commission on large dams – refer to response in no. 163. Refer to response provided for no. 27 regarding the impacts of the project to the uMkhomazi River. Refer to response provided for no. 24 regarding impacts to the uMkhomazi Estuary. Information from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA (2014) to be included in the EIA Report. Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.
308.	<u>Environmental Impact Assessment Process</u> 1. It remains a concern that the proposed project continues without a shift in focus from mitigation and compensation to avoidance and minimisation	C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	The objective of the Feasibility Study, which commenced in 2011, was to finalise the planning of the proposed uMWP-1 at a very detailed level so that the scheme may be accurately compared with other possible alternatives and be ready for implementation

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>of social and environmental impacts, these being fundamental criteria which should guide any options assessment.</p> <p>The outcome of a pre-feasibility report considers that "...the transfer scheme is deemed to be the most viable option to provide a large volume of water to fulfil the long-term water requirements of the Mgeni system, including the Reserve...". This is based on outdated information (with the report having been completed in 1999) however the EIA process has allowed the concerns raised by Coastwatch and other parties in this regard to be overlooked and, in fact, dismissed on the basis that screening studies have shown that the proposed uMWP-1 project is the most feasible. Coastwatch must question whether studies undertaken at the time – over two decades ago - have relevance to the current state of the environment and how information currently available influences the scenario?</p> <p>The project – raw water component – has not taken into account updated technical and scientific information and present knowledge on the environmental consequences of river impoundment. Criteria used over two decades ago to determine a 'feasible' option for water security would not have placed a value on the environment, a value which is increasingly recognised.</p>					<p>(detailed design and construction) on completion of the study.</p> <p>The study included a comprehensive analysis of the hydrology of the entire uMkhomazi River catchment, which entailed the following (amongst others):</p> <ul style="list-style-type: none"> • Update land use data; • Update and analyse rainfall, evaporation and streamflow data; • Determine groundwater resources; • Configure and test the WRSM; • Calibrate the runoff with the WRSM; • Naturalise runoff; • Verify and validate stochastic hydrology; • Identification, sourcing and reviewing of all background information; • Confirmation of demographic, current population figures, and current water consumption by all sectors; • Confirm transfers from adjacent catchments into the uMkhomazi area; • Compiling demand projection scenarios for all sectors, including seasonal peaks; and • Development and analyses of different ecological water requirement scenarios for each Reserve site with the WRYM. <p>Refer to the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx) for the deliverables of the Feasibility Study.</p> <p>The Hydrology for the area will be updated and the reserve and classification study for the river will be done to see if previous work is still relevant.</p>	
309.	<p><u>Ecosystem Infrastructure</u></p> <p>Negative impacts from river impoundment are unavoidable and river health is a vital driver of the standard of Ecosystem Goods and Services (EGS) that a system delivers. It is clear that the better the health of the system the higher the delivery of EGS. While we appreciate that there is an ever increasing demand for water the availability of supply cannot be looked at without considering, and addressing, the reasons for the decline in water quality -</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	<ul style="list-style-type: none"> • Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project. • Refer to responses provided for no. 186, 302, 471 and 507 regarding Ecological Infrastructure.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>ecosystem degradation and destruction. The proposed project continues in isolation of this vital aspect and completely overlooks sustainability objectives. It is a concern that the process focuses on the impoundment for consumption while seemingly downgrading the implications on the river environment.</p> <p>We again refer to the approach followed for the Ntabelange Dam on the Tsitsa River, Umzimvubu (praised by President Zuma at the launch of this project). No reason is given why this approach is not being followed with respect to the Smithfield Dam (and Impendle Dam) and it is a concern that the specifications for the dam have not been revisited after this recognition of the value of ecological infrastructure.</p>						
310.	<p><u>Impacts on the Mkhomazi Estuary</u> As a requirement for determining the reserve sampling of the Mkhomazi estuary has been ongoing since 1998 with Marine and Estuarine Research (MER) undertaking the studies. The results of the last 10 years of monitoring were presented to the Sappi Licence Advisory Forum (of which Coastwatch has been a member since inception) at the meeting held on 6 November 2014, with the following outcomes which need to inform further studies:</p> <p>1. Offshore services The Mkhomazi estuary is placed in the top 20 of South Africa's catchments contributing to the coastal and marine environment in terms of sediments, nutrients and organics.</p> <p>The value of the Mkhomazi within the proposed expanded Aliwal Shoal Marine Protected Area needs to be taken into consideration.</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓	✓	<ul style="list-style-type: none"> Refer to response provided for no. 24 regarding impacts to the uMkhomazi Estuary. Information from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA (2014) to be included in the EIA Report. Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.
311.	<p><u>2. Biodiversity Conservation Targets</u> The Mkhomazi estuary is a National Core Priority</p>	C. Schwegman (Coastwatch)	✓	✓	✓	✓	<ul style="list-style-type: none"> Refer to response provided for no. 24 regarding impacts to the uMkhomazi Estuary.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	set for biodiversity conservation. This is significant and should these biodiversity services be lost or reduced there is quite simply no other un-impacted system in the province available to compensate for this loss. Reducing the conservation status of the Mkhomazi would require several other systems to be conserved to meet the targets, an objective overlooked in the EIA process. Thus the consequence of damming the Mkhomazi river could result in failure to meet biodiversity conservation targets.	KZN)					<ul style="list-style-type: none"> Information from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA (2014) to be included in the EIA Report.

4.8 Water Use and Supply

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 21 October 2014							
312.	<p>With regards to the EIA and WULA alternatives:</p> <ol style="list-style-type: none"> I would like to see other opinions from other specialist river ecologists on the pro's and cons of constructing large dams on large rivers first before utilizing/ developing smaller rivers and tributaries first. Also with regards to the pipeline storage dam in the mountain wetland catchment we need to have clear indication why the existing farm dam cannot be raised or why the dam cannot be constructed downstream of the wetland. Plant Species Plans to be addressed. Plant search and rescue to be implemented. Fish requirements to be addressed. Reserve releases to be addressed. RMP to be addressed. Catchment pollution impacts on water quality to be predicted and mitigation proposed. 	P. Ackerman (DWS: Sub Directorate Instream Water Use)	✓	✓	✓	✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	9. Environmental Bill of Quantity to be compiled to tender upon. 10. Monitoring and auditing to be detailed. 11. Rehabilitation Plan to be detailed.						
Source: Correspondence (Letter) – 29 January 2015							
313.	<p>Page 1:</p> <p><u>RE: DRAFT AND FINAL SCOPING REPORT- PROPOSED UMKHOMAZI WATER PROJECT PHASE 1- RAW WATER COMPONENT.</u></p> <p>Reference is made to the Draft Scoping Report received by this Office on 04th September 2014 as well as the Final Scoping Report received on 08th November 2014.</p> <p>This Department has the following comments with regard to the proposed development:</p> <p>(1) Water Use Authorisations and Water Resources.</p> <p>(1.1) It is noted that first phase of the Project would comprise of a new 58m-high Smithfield Dam on the Umkhomazi River near Richmond. Water Conveyance Infrastructure (including a 34km long tunnel and a raw water pipeline), a multi-level intake tower and a pump station, a water transfer pipeline to the existing Baynesfield in the Umhiza River valley, a wastewater treatment works and a gravity pipeline to a distribution reservoir at Umhiza Road.</p> <p>(1.2) The Report mentions that wetlands will be crossed during the proposed project. Please note that any development (road, structure, pipe, etc.) within a 500m radius from the boundary of a wetland requires a water use licence in terms of Section 21 (c) and (j) of the National Water Act, 1988 (Act No. 36 of 1988) (NWA).</p> <p>(1.3) Page 21 of the Draft Report indicates that watercourses will be crossed by a pipelines and access roads. Please note that this is a water use in terms of Section 21 (c) and (j) of the NWA and must be authorised by this Department. The river, stream, and associated must be treated as sensitive environment areas, caution must be exercised near the watercourses.</p> <p>(1.4) Should an activity be identified as a possible Section 21(j) water use, the Applicant must delineate the watercourse and riparian habitat using the Departmental guideline, "A practical field procedure for identification and delineation of wetlands and riparian areas". The Applicant will require an authorisation from the Department for any activity within the riparian habitat or 1:100 year floodline, whichever is the greatest distance. A Functional Assessment is required as well as a Wetland Rehabilitation and Management Plan.</p> <p>(1.5) Page 62 of the Report mentions that an earthen berm (coffer dam) and temporary bypass canal are constructed to divert the water around the construction site. Please note that this is a water use in terms of Section 21 (c) and (j) of the NWA and must be authorised by this Department.</p>	RJ Madibe (DWS)	✓	✓	✓		Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE																						
			Smithfield Dam	Tunnel	Balancing Dam																								
	<p>Page 2:</p> <p>(1.6) Page 65 of the Draft Report mentions that wastewater discharges will comply with legal requirements associated with the NWA. This water use will require an authorisation in terms of Section 21 (f) of the NWA.</p> <p>(1.7) The storage of water is a water use and requires an authorisation in terms of Section 21 (b) of the NWA.</p> <p>(1.8) Page 26 of the Draft Report mentions that water will be abstracted from the Umkhomazi and UMaza River, please note that this water use will require an authorisation in terms of Section 21 (a) of the NWA.</p> <p>(1.9) It is the responsibility of the Applicant to identify all water uses applicable to the development in terms of Section 21 of the NWA, and ensure that all applicable water uses are authorised as such. The Applicant must consult with this Department if clarity is required with regard to water uses and water use authorisations. These water uses are listed in Table 1:</p> <table border="1"> <caption>Table 1: Water Uses as per Section 21 of the NWA</caption> <tr><td>S21(a)</td><td>taking water from a water resource;</td></tr> <tr><td>S21(b)</td><td>storing water;</td></tr> <tr><td>S21(c)</td><td>impeding or diverting the flow of water in a watercourse;</td></tr> <tr><td>S21(d)</td><td>engaging in a stream flow reduction activity (currently only commercial afforestation);</td></tr> <tr><td>S21(e)</td><td>engaging in a controlled activity – activities which impact detrimentally on a water resource (activities identified in s37(1) or declared as such under s88(1)) namely: > irrigation of any land with waste or water containing waste which is generated through an industrial activity or a waterwork; > an activity aimed at the modification of atmospheric precipitation; > a power generation activity which alters the flow regime of a water resource; or > intentional recharge of an aquifer with any waste or water containing waste</td></tr> <tr><td>S21(f)</td><td>discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outlet or other conduit;</td></tr> <tr><td>S21(g)</td><td>disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource;</td></tr> <tr><td>S21(h)</td><td>disposing in any manner of water which contains waste from, or has been heated in, any industrial or power generation process;</td></tr> <tr><td>S21(i)</td><td>altering the bed, banks, course or characteristics of a watercourse;</td></tr> <tr><td>S21(j)</td><td>removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and</td></tr> <tr><td>S21(k)</td><td>using water for recreational purposes</td></tr> </table> <p>(1.10) Please note that no person may use water otherwise as permitted under the NWA, 1988. Should you engage in any water use without the necessary water use authorisation it will be regarded as an unlawful water use and are guilty of an offence and liable for a fine or imprisonment as stipulated in Section 151 of the NWA, 1988 (Act 36 of 1988).</p> <p>(1.11) A pre-Water Use Licence Application meeting is required. Please contact Ms. Z Madibe (Licensing Administrator) on 031 338 2767/2700 to arrange this meeting.</p> <p>(1.12) The following is applicable with regard to the construction of a new Water Treatment Works:</p> <p>(a) The construction of the proposed Water Treatment Works (WTW) must be done in consultation with this Department. Registration and classification of the WTW must be done as required by Regulation 2634 for the Erection, Enlargement, Operation and Registration of Water Care Works.</p>	S21(a)	taking water from a water resource;	S21(b)	storing water;	S21(c)	impeding or diverting the flow of water in a watercourse;	S21(d)	engaging in a stream flow reduction activity (currently only commercial afforestation);	S21(e)	engaging in a controlled activity – activities which impact detrimentally on a water resource (activities identified in s37(1) or declared as such under s88(1)) namely: > irrigation of any land with waste or water containing waste which is generated through an industrial activity or a waterwork; > an activity aimed at the modification of atmospheric precipitation; > a power generation activity which alters the flow regime of a water resource; or > intentional recharge of an aquifer with any waste or water containing waste	S21(f)	discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outlet or other conduit;	S21(g)	disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource;	S21(h)	disposing in any manner of water which contains waste from, or has been heated in, any industrial or power generation process;	S21(i)	altering the bed, banks, course or characteristics of a watercourse;	S21(j)	removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and	S21(k)	using water for recreational purposes	RJ Madibe (DWS)	✓	✓	✓		Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.
S21(a)	taking water from a water resource;																												
S21(b)	storing water;																												
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No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 3:</p> <p>(b) The WTW operation and maintenance must comply with all other requirements of the Blue Drop Certification programme</p> <p>(1.13) The quality of the water supplied to the community must meet the drinking water quality standards.</p> <p>(1.14) Water Treatment Residue (WTR) must be classified in terms of the Waste Classification and Management Regulations (GNR 634 promulgated on 23 August 2013). The TCLP test as indicated in the Minimum Requirements for landfills can be utilized to also determine the leachable fraction.</p> <p>(1.16) If the WTR has high plant available concentrations potentially toxic elements it would indicate that it would be unsuitable for land application due to potential phytotoxicity or food-chain contamination. Manganese is generally the major constituent of concern in the WTR.</p> <p>(1.16) Impacts and mitigation factors of disposal of WTR on land must be assessed, and can include:</p> <p>(a) application restrictions for land application;</p> <p>(b) maximum load restrictions for Dedicated Land Disposal (DLD) (to protect groundwater);</p> <p>(c) access restrictions for grazing animals on DLD sites where potentially toxic elements are known to be high;</p> <p>(d) buffer zones between WTR and surface water and groundwater;</p> <p>(e) Impact of WTR on soil properties to be understood; and</p> <p>(f) Impact of WTR on surface and groundwater to be assessed.</p> <p>(2) Solid Waste Management</p> <p>(2.1) All waste material generated must be disposed of at a permitted landfill site that is authorised to accept such waste. Safe disposal certificates must be kept on record.</p> <p>(2.2) Contaminated soil or other hazardous material must be disposed of at a permitted hazardous landfill site that is authorised to accept this solid material.</p> <p>(2.3) Should private contractors be used, all solid waste must be disposed of at a permitted landfill site, and proof of this must be made available to this Department when required.</p> <p>(2.4) Such waste must be placed in skips stored in a designated storage/holding area prior to being safely disposed of and must not cause any surface and groundwater pollution or pose any health hazards.</p> <p>(2.5) The recycling of suitable material is encouraged by this Department, provided it is properly managed.</p> <p>(2.6) All contaminated material and hazardous waste material must be disposed of at a permitted landfill site. The only 2 low hazardous landfill sites in the KwaZulu Natal province are the Shongweni and KwaDuzulu Landfill Site.</p> <p>(3) Sewage and Wastewater Management</p> <p>(3.1) Washing, refuelling, maintaining of vehicles or the transfer of hazardous substances must be conducted within a bunded area. All drainage arising from the bunded area must be treated as a water containing waste and disposed of safely.</p>	RJ Madibe (DWS)	✓	✓	✓		Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 4:</p> <p>(3.2) Page 54 of the Draft Report indicates that chemical toilets will be installed along the project route. The use of temporary, chemical toilet facilities must not cause any pollution to water sources as well as pose a health hazard. In addition, these toilets must be situated out of the 1:100 year floodline of the river.</p> <p>(3.3) Page 64 of the Report further indicates that temporary septic field/tank system will be provided at the residential labour camp and site offices. Please note that Septic tank and soakaway system (for treatment of domestic sewage and greywater) must comply with the following:</p> <p>(a) The effluent treatment and disposal systems must be sited out of the 1:100 year flood line.</p> <p>(b) French drains are used in conjunction with a Septic tank system.</p> <p>(c) The system must be located on land that is not, or does not, overlie, a Major Aquifer (Identification of a Major Aquifer will be provided by this Department's Geohydrology Section, upon written request).</p> <p>(d) The necessary percolation tests must be conducted in accordance with the SABS Code 0400-1990 by a suitably qualified engineer. The test results must demonstrate/confirm that the soils are suitable to support this system.</p> <p>(e) The septic tank system must not impact on a water resource or any other person's water use, property or land, and measures must be in place to prevent contamination of local groundwater and surface water.</p> <p>(f) There must be no health or nuisance impacts arising from the treatment and disposal system.</p> <p>(g) Surface stormwater, subsoil seepage and local groundwater conditions must be taken into consideration when positioning, designing and constructing the soak-away and evapotranspiration area.</p> <p>(h) No industrial effluent is permitted to be disposed off through this system.</p> <p>(i) Removal of sludge and scum from the septic tank must occur on a regular basis and must be disposed off in a safe manner.</p> <p>(j) Should the system result in the creation of any unacceptable health hazards or pose a problem to the environment (includes surface and groundwater), an alternative treatment and disposal system may be required to be installed.</p> <p>(k) The location of the septic tank/soakaway system with a 500m radius from the boundary of a wetland will require the Applicant to apply for a Water Use License in terms of Section 21 (c) and (i) of the NWA.</p> <p>(4) Stormwater Management</p> <p>(4.1) It is imperative that there is proper management of storm water on site. A detailed Stormwater Management Plan must therefore be drawn up and be submitted to this Department as part of the Water Use Authorization Application.</p> <p>(4.2) The Engineer or Contractor must ensure that only clean stormwater runoff enters the environment.</p> <p>(4.3) Drainage must be controlled to ensure that runoff on site does not contribute in off-site pollution, flooding or result in any damage to properties downstream of any storm water discharge.</p> <p>(5) Erosion Control</p> <p>(5.1) Erosion control measures must be put in place to minimize erosion along the proposed project areas. Extra precautions must be taken in areas where the soils are deemed highly erodible.</p>	RJ Madibe (DWS)	✓	✓	✓		Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 5:</p> <p>(5.2) Soil erosion onsite must be prevented at all times i.e. pre-, during- and post-construction activities. Erosion control measures must be implemented in areas sensitive to erosion such as near water supply points, edges of slopes, etc. These measures could include the use of silt bags, retention or replacement of vegetation.</p> <p>(6) Incident Management</p> <p>(6.1) It is important that any significant spillage of chemicals, fuels, etc. during the construction phase is reported to this Office and other relevant authorities. In the event of a spill, the following steps can be taken:</p> <p>(a) Stop the source of the spill; (b) Contain the spill; (c) All significant spills must be reported to this Department and other relevant authorities; (d) Remove the spilled product for treatment or authorised disposal; (e) Determine if there is any soil, groundwater or other environmental impact; (f) If necessary, remedial action must be taken in consultation with this Department and the Department of Environmental Affairs; and (g) Incident must be documented.</p> <p>(7) General</p> <p>(7.1) There must be no unacceptable impact on the quality of both surface and groundwater in the area. If pollution of any surface or groundwater occurs, it must be immediately reported to this Department and the appropriate mitigation measures must be employed. In addition, should the proposed project impact on any groundwater and/or surface water users, then water of equal quality and quantity must be provided to the affected users.</p> <p>(7.2) No form of secondary pollution should arise from the disposal of sewage and refuse. The Contractor must be clearly briefed on the method of disposal of such waste and compliance must be ensured/monitored. Any pollution problem arising from the above project must be addressed immediately by the Applicant.</p> <p>(7.3) Storage of material, chemicals, fuels, etc. must not pose a risk to the surrounding environment and this includes surface and groundwater. Such storage areas must be located outside the 1:100 year flood line of any watercourse and must be fenced to prevent unauthorised access into the area. Temporary bunds must also be constructed around chemical or fuel storage areas to contain possible spillages.</p> <p>(7.4) Notwithstanding the above, the responsibility rests with the Applicant to identify any source or potential sources of pollution from his undertaking and to take appropriate measures to prevent any pollution of the environment. Failure to comply with the requirements of the National Water Act, 1998 (Act 36 of 1998) could lead to legal action being instituted against the Applicant.</p>	RJ Madibe (DWS)	✓	✓	✓		Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p><u>Page 1:</u></p> <p>RE: DRAFT AND FINAL SCOPING REPORT - PROPOSED UMKHOMAZI WATER PROJECT PHASE 1 – POTABLE WATER COMPONENT.</p> <p>Reference is made to the Draft Scoping Report received by this Office on 04th September 2014 as well as the Final Scoping Report received on 05th November 2014.</p> <p>This Department has the following comments with regard to the proposed development:</p> <p>(1) Water Use Authorisations and Water Resources</p> <p>(1.1) It is noted that first phase of the Project would comprise of a new 58m high Smithfield Dam on the Umkhomazi River near Richmond, a multi level intake tower and a pump station, a water transfer pipeline to the existing Baynesfield in the Umhlabazi River valley and a gravity pipeline to a distribution reservoir at Umbasa Road.</p> <p>(1.2) The Report mentions that wetlands will be crossed during the proposed project. Please note that any development (road, structure, pipe, etc.) within a 500m radius from the boundary of a wetland requires a water use licence in terms of Section 21 (c) and (j) of the National Water Act, 1998 (Act No. 36 of 1998) (NWA).</p> <p>(1.3) Page 21 of the Report indicates that watercourses will be crossed by a possible pipeline and access roads. Please note that this is a water use in terms of Section 21 (c) and (j) of the NWA and must be authorised by this Department. The river, stream, and associated must be treated as sensitive environment areas, caution must be exercised near the watercourses.</p> <p>(1.4) Should an activity be identified as a possible Section 21(j) water use, the Applicant must delineate the watercourse and riparian habitat using the Departmental guideline, "A practical field procedure for identification and delineation of wetlands and riparian areas". The Applicant will require an authorisation from the Department for any activity within the riparian habitat or 1:100 year floodline, whichever is the greatest distance. A Functional Assessment is required as well as a Wetland Rehabilitation and Management Plan.</p> <p>(1.5) Page 62 of the Report mentions that an earthen berm (coffer dam) and temporary bypass canal are constructed to divert the water around the construction site. Please note that this is a water use in terms of 21 (c) and (j) of the NWA, and must be authorised by this Department.</p>	RJ Madibe (DWS)				✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE																						
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	<p>Page 2:</p> <p>(1.6) The Report mentions that sludge will be generated at the Water Treatment Works (WTW). Please note that the manner which the sludge will be disposed of may trigger a water use authorisation in terms of Section 21 (e) and/or (g) of the NWA.</p> <p>(1.7) The Report further mentions that there may be instances where wastewater will be discharged during the operational phase of the WTW. This water use will require an authorisation in terms of Section 21 (f) of the NWA.</p> <p>(1.8) The storage of potable water is a water use and requires an authorisation in terms of Section 21 (b) of the NWA.</p> <p>(1.9) Please note that the Report does not mention the source of water to be used during the construction phase of the project. Please note that should there be any abstraction of water from the water resource, an authorisation needs to be obtained from this Department.</p> <p>(1.10) It is the responsibility of the Applicant to identify all water uses applicable to the development in terms of Section 21 of the NWA and ensure that all applicable water uses are authorised as such. The Applicant must consult with this Department if clarity is required with regard to water uses and water use authorisations. These water uses are listed in Table 1.</p> <table border="1"> <caption>Table 1: Water Uses as per Section 21 of the NWA</caption> <tr><td>B21(a)</td><td>taking water from a water resource;</td></tr> <tr><td>B21(b)</td><td>storing water;</td></tr> <tr><td>B21(c)</td><td>impeding or diverting the flow of water in a watercourse;</td></tr> <tr><td>B21(d)</td><td>engaging in a stream flow reduction activity (currently only commercial afforestation);</td></tr> <tr><td>B21(e)</td><td>engaging in a controlled activity – activities which impact detrimentally on a water resource (activities identified in s37(1) or declared as such under s38(1)) namely: <ul style="list-style-type: none"> ➤ irrigation of any land with waste or water containing waste which is generated through an industrial activity or a waterwork; ➤ an activity aimed at the modification of atmospheric precipitation; ➤ a power generation activity which alters the flow regime of a water resource; or ➤ intentional recharge of an aquifer with any waste or water containing waste; </td></tr> <tr><td>B21(f)</td><td>discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;</td></tr> <tr><td>B21(g)</td><td>disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource;</td></tr> <tr><td>B21(h)</td><td>disposing in any manner of water which contains waste from, or has been heated in, any industrial or power generation process;</td></tr> <tr><td>B21(i)</td><td>skimming the bed, banks, course or characteristics of a watercourse;</td></tr> <tr><td>B21(j)</td><td>removing, discharging or disposing of water found underground if it is necessary for the efficient construction of an activity or for the safety of people; and</td></tr> <tr><td>B21(k)</td><td>using water for recreational purposes;</td></tr> </table> <p>(1.11) Please note that no person may use water otherwise as permitted under the NWA, 1988. Should you engage in any water use without the necessary water use authorisation it will be regarded as an unlawful water use and are guilty of an offence and liable for a fine or imprisonment as stipulated in Section 151 of the NWA, 1988 (Act 36 of 1988).</p> <p>(1.12) A pre-Water Use Licence Application meeting is required. Please contact Ms. Z Hadebe (Licensing Administrator) on 031 336 2767/2700 to arrange this meeting.</p>	B21(a)	taking water from a water resource;	B21(b)	storing water;	B21(c)	impeding or diverting the flow of water in a watercourse;	B21(d)	engaging in a stream flow reduction activity (currently only commercial afforestation);	B21(e)	engaging in a controlled activity – activities which impact detrimentally on a water resource (activities identified in s37(1) or declared as such under s38(1)) namely: <ul style="list-style-type: none"> ➤ irrigation of any land with waste or water containing waste which is generated through an industrial activity or a waterwork; ➤ an activity aimed at the modification of atmospheric precipitation; ➤ a power generation activity which alters the flow regime of a water resource; or ➤ intentional recharge of an aquifer with any waste or water containing waste; 	B21(f)	discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;	B21(g)	disposing of waste or water containing waste in a manner which may detrimentally impact on a water resource;	B21(h)	disposing in any manner of water which contains waste from, or has been heated in, any industrial or power generation process;	B21(i)	skimming the bed, banks, course or characteristics of a watercourse;	B21(j)	removing, discharging or disposing of water found underground if it is necessary for the efficient construction of an activity or for the safety of people; and	B21(k)	using water for recreational purposes;	RJ Madibe (DWS)				✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.
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No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 3:</p> <p>(1.13) The following is applicable with regard to the construction of a new Water Treatment Works:</p> <p>(a) The construction of the proposed Water Treatment Works (WTW) must be done in consultation with this Department. Registration and classification of the WTW must be done as required by Regulation 2834 for the Erection, Enlargement, Operation and Registration of Water Care Works.</p> <p>(b) The WTW operation and maintenance must comply with all other requirements of the Blue Drop Certification programme.</p> <p>(1.14) The quality of the water supplied to the community must meet the drinking water quality standards.</p> <p>(1.15) Water Treatment Residue (WTR) must be classified in terms of the Waste Classification and Management Regulations (GNR 634 promulgated on 23 August 2013). The TCLP test as indicated in the Minimum Requirements for landfills can be utilized to also determine the leachable fraction.</p> <p>(1.16) If the WTR has high plant available concentrations potentially toxic elements it would indicate that it would be unsuitable for land application due to potential phytotoxicity or food-chain contamination. Manganese is generally the major constituent of concern in the WTR.</p> <p>(1.17) Impacts and mitigation factors of disposal of WTR on land must be assessment and can include:</p> <p>(a) application restrictions for land application;</p> <p>(b) maximum load restrictions for Dedicated Land Disposal (DLD) (to protect groundwater);</p> <p>(c) access restrictions for grazing animals on DLD sites where potentially toxic elements are known to be high;</p> <p>(d) buffer zones between WTR and surface water and groundwater;</p> <p>(e) Impact of WTR on soil properties to be understood; and</p> <p>(f) Impact of WTR on surface and groundwater to be assessed.</p> <p>(2) Solid Waste Management</p> <p>(2.1) All waste material generated must be disposed of at a permitted landfill site that is authorised to accept such waste. Safe disposal certificates must be kept on record.</p> <p>(2.2) Contaminated soil or other hazardous material must be disposed of at a permitted hazardous landfill site that is authorised to accept the said material.</p> <p>(2.3) Should private contractors be used, all solid waste must be disposed of at a permitted landfill site, and proof of this must be made available to this Department when required.</p> <p>(2.4) Such waste must be placed in skips stored in a designated storage/collection area prior to being safely disposed of and must not cause any surface and groundwater pollution or pose any health hazards.</p> <p>(2.5) The recycling of suitable material is encouraged by this Department, provided it is properly managed.</p> <p>(2.6) All contaminated material and hazardous waste material must be disposed of at a permitted landfill site. The only 2 low hazardous landfill sites in the KwaZulu Natal province are the Shongweni and KwaDukuza Landfill Site.</p> <p style="text-align: right;">Page 3 of 6</p>	RJ Madibe (DWS)				✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 4:</p> <p>(3) Sewage and Wastewater Management</p> <p>(3.1) Washing, refueling, maintaining of vehicles or the transfer of hazardous substances must be conducted within a bunded area. All drainage arising from the bunded area must be treated as a water containing waste and disposed of safely.</p> <p>(3.2) Page 63 of the Report indicates that chemical toilets will be installed along the project route. The use of temporary, chemical toilet facilities must not cause any pollution to water sources as well as pose a health hazard. In addition, these toilets must be situated out of the 1:100 year floodline of the river.</p> <p>(3.3) Page 63 of the Scoping Report indicates that temporary septic field/tank system will be provided at the residential labour camp and site offices. Please note that Septic tank and soakaway system (for treatment of domestic sewage and greywater) must comply with the following</p> <p>(a) The effluent treatment and disposal systems must be sited out of the 1:100 year flood line.</p> <p>(b) French drains are used in conjunction with a Septic tank system.</p> <p>(c) The system must be located on land that is not, or does not, overlie, a Major Aquifer (identification of a Major Aquifer will be provided by this Department's Geohydrology section upon written request).</p> <p>(d) The necessary percolation tests must be conducted in accordance with the SABS Code 0400-1990 by a suitably qualified engineer. The test results must demonstrate/confirm that the soils are suitable to support this system.</p> <p>(e) The septic tank system must not impact on a water resource or any other person's water use, property or land, and measures must be in place to prevent contamination of local groundwater and surface water.</p> <p>(f) There must be no health or nuisance impacts arising from the treatment and disposal system.</p> <p>(g) Surface stormwater, subsol seepage and local groundwater conditions must be taken into consideration when positioning, designing and constructing the soak-away and evapotranspiration area.</p> <p>(h) No industrial effluent is permitted to be disposed of through this system.</p> <p>(i) Removal of sludge and scum from the septic tank must occur on a regular basis and must be disposed of in a safe manner.</p> <p>(j) Should the system result in the creation of any unacceptable health hazards or pose a problem to the environment (includes surface and groundwater), an alternative treatment and disposal system may be required to be installed.</p> <p>(k) The location of the septic tank/soakaway system with a 500m radius from the boundary of a wetland will require the Applicant to apply for a Water Use License in terms of Section 21 (c) and (i) of the NWA.</p> <p>(4) Stormwater Management</p> <p>(4.1) It is imperative that there is proper management of storm water on site. A detailed Stormwater Management Plan must therefore be drawn up and be submitted to this Department as part of the Water Use Authorisation Application.</p> <p>(4.2) The Engineer or Contractor must ensure that only clean stormwater runoff enters the environment.</p> <p>(4.3) Drainage must be controlled to ensure that runoff on site does not culminate in off-site pollution, flooding or result in any damage to properties downstream of any storm water discharge.</p>	RJ Madibe (DWS)				✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Page 5:</p> <p>(5) Erosion Control</p> <p>(5.1) Erosion control measures must be put in place to minimise erosion along the proposed project areas. Extra precautions must be taken in areas where the soils are deemed highly erodible.</p> <p>(5.2) Soil erosion onsite must be prevented at all times i.e. pre-, during- and post-construction activities. Erosion control measures must be implemented in areas sensitive to erosion such as near water supply points, edges of slopes, etc. These measures could include the use of sand bags, retention or replacement of vegetation.</p> <p>(6) Incident Management</p> <p>(6.1) It is important that any significant spillage of chemicals, fuels, etc. during the construction phase is reported to this Office and other relevant authorities. In the event of a spill, the following steps can be taken:</p> <p>(a) Stop the source of the spill;</p> <p>(b) Contain the spill;</p> <p>(c) All significant spills must be reported to this Department and other relevant authorities;</p> <p>(d) Remove the spilled product for treatment or authorised disposal;</p> <p>(e) Determine if there is any soil, groundwater or other environmental impact;</p> <p>(f) If necessary, remedial action must be taken in consultation with this Department and the Department of Environmental Affairs; and</p> <p>(g) Incident must be documented.</p> <p>(7) General</p> <p>(7.1) There must be no unacceptable impact on the quality of both surface and groundwater in the area. If pollution of any surface or groundwater occurs, it must be immediately reported to this Department and the appropriate mitigation measures must be employed. In addition, should the proposed project impact on any groundwater and/or surface water users, then water of equal quality and quantity must be provided to the affected users.</p> <p>(7.2) No form of secondary pollution should arise from the disposal of sewage and refuse. The Contractor must be clearly briefed on the method of disposal of such waste and compliance must be ensured/monitored. Any pollution problem arising from the above project must be addressed immediately by the Applicant.</p> <p>(7.3) Storage of material, chemicals, fuels, etc. must not pose a risk to the surrounding environment and this includes surface and groundwater. Such storage areas must be located outside the 1:100 year flood line of any watercourse and must be fenced to prevent unauthorised access into the area. Temporary bunds must also be constructed around chemical or fuel storage areas to contain possible spillages.</p> <p>(7.4) Notwithstanding the above, the responsibility rests with the Applicant to identify any source or potential sources of pollution from his undertaking and to take appropriate measures to prevent any pollution of the environment. Failure to comply with the requirements of the National Water Act, 1956 (Act 36 of 1956) could lead to legal action being instituted against the Applicant.</p>	RJ Madibe (DWS)				✓	Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.

5 COMMENTS AND RESPONSES – EIA PHASE

5.1 Alternatives

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 18 March 2016							
314.	We have identified a new route to the dam that will not interfere with guests at the lodge in the future. I have attached a google map marking it out. The route mostly follows option 2 but a bit then goes onto the Antel's property. They should be ok with it as they take out cane along this same route and may appreciate a better road. This route really makes sense.	M. van Deventer (Baynesfield Estate)		✓	✓		<p>The new route for the access road suggested by M van Deventer does not go past the tunnel outlet, which is one of the main work fronts of the project.</p> <p>To mitigate impacts to the Baynesfield Estate Lodge it is recommended that this facility be recreated by DWS at Baynesfield Dam prior to construction. During the construction phase the existing facilities at the lodge could be leased to the construction team to ensure continued income from the lodge. After construction these facilities will be left in the same state or better as when construction commenced to allow for the lodge to continue functioning.</p>

5.2 Socio-economic Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 10 August 2015							
315.	<ul style="list-style-type: none"> Where are going to move the community to? Are you going to pay any compensation? If yes, how much? The size of the new land where the people are going to be relocated to (compared to existing land). The middle man or the team that will deal with consultation made by both chief members as 	T. Dlamini	✓	✓			<p>Your queries regarding relocation, with specific reference to resettlement area (location and size), compensation and on-going consultation with the affected community, refer.</p> <p>We are currently undertaking the Environmental Impact Assessment (EIA) for the project, as part of the Feasibility Phase. As part of this assessment we need to understand what the impacts are and how they can be suitably mitigated. In terms of</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	well as your members, so that it will be very easy for both parties to communicate.						<p>relocation of dwellings and structures within Smithfield Dam's buffer area, we are aiming at developing a Relocation Framework Plan as part of the EIA. If approval is granted for the project and following the design phase, the project will move into the Implementation Phase.</p> <p>Prior to construction, the intention is to compile a Relocation Action Plan that will appropriately address all relocation requirements. Only at this stage will the proposed resettlement area and compensation be finalised, with thorough consultation with the affected community.</p> <p>Please that the Department of Water and Sanitation will comply with all legal statutes and international best practice standards for the resettlement of affected dwellings and associated compensation. The process will also abide by the requirements of Ingonyama Trust Board and the Department of Rural Development and Land Reform. Some of the key principles for the resettlement include:</p> <ul style="list-style-type: none"> • To avoid or minimize adverse social and economic impacts from land acquisition; • To ensure that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected; • To improve, or restore, the livelihoods and standards of displaced persons; and • To plan and implement the resettlement in consultation with local elected officials, the Traditional Authorities and/or Resettlement Working Groups. <p>We hope that this sheds some light on resettlement at Smithfield Dam.</p>
Source: Correspondence (Email) – 17 August 2015							
316.	Please advise, as a SME in the area (C-Nolwazi Projects and Construction) what procedure to follow in order to play role in providing some of the services once the project kick in I would be glad to take in creation of this infrastructure.	S. Sokhela	✓	✓			<p>At this stage the project is only in the Feasibility Phase. Construction is earmarked to commence in 2018. A local SMME recruitment preference policy will be established. However, this will be implemented by the Contractor.</p> <p>As we are only responsible for the Environmental Impact Assessment, we will not have further involvement during the</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							implementation of the project. I've copied in the DWS project manager.

5.3 Climate

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
317.	I Hatton asked if a micro-climate study will be undertaken.	I. Hatton (Ezemvelo KZN Wildlife)	✓	✓	✓	✓	D Henning explained that the impacts of Smithfield Dam on the micro-climate will be evaluated on a desktop level. <i>Refer to response to no. 186 regarding the consideration of climate change.</i>

5.4 Terrestrial Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
318.	A Blackmore enquired about the surface impacts along the tunnel. A Blackmore suggested that consideration be given along the tunnel for a protected area servitude for features such as Blue Swallow habitat.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		D Henning explained that surface impacts would be caused by the inlet, central and outlet portals, as well as at the adits and shafts and the associated access roads. H Pieterse noted that the tunnel's servitude will only be 24 m wide and A Blackmore stated that this is not wide enough for this purpose.
319.	R Faure enquired about the recovery of biological material. R Faure highlighted that at least one year was required for adequate identification and collection.	R. Faure (Ezemvelo KZN Wildlife)	✓	✓	✓		D Henning explained that a search, rescue and relocation plan would be compiled for the project.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
320.	D Thambu enquired about the terrestrial biodiversity specialist studies to be conducted.	D. Thambu (Ezemvelo KZN Wildlife)	✓	✓	✓		D Henning indicated that the following studies will be done in this regard: <ul style="list-style-type: none"> • Terrestrial Fauna and Flora Study; and • Avifauna Study.
321.	A Blackmore indicated that the option for the power line to traverse the dam needed to consider the flight paths of birds.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		D Henning noted that the initial option to deviate a power line that will be affected by the Smithfield Dam basin through the Impendle Nature Reserve had been discarded. Avifauna Study to consider flight paths of birds further.
322.	R Faure requested a high quality map indicating the project footprint in relation to the Impendle Nature Reserve. Once this map has been reviewed feedback will be provided in terms of the project's potential impacts to the reserve and EKZWN's requirements.	R. Faure (Ezemvelo KZN Wildlife)	✓	✓	✓		Map provided to EKZWN on 15 April 2015.
323.	R Faure stated that it would not be feasible from a maintenance perspective to extend the boundary of the Impendle Nature Reserve to include Smithfield Dam. A Blackmore concurred that this would not be desirable due to liability issues, problems with the community and the high risk of roadkills along the deviated R617.	R. Faure (Ezemvelo KZN Wildlife)	✓	✓	✓		Noted.
324.	A Blackmore suggested that land under the Protected Area Expansion Programme that is representative of the Impendle Nature Reserve be considered further for biodiversity offsets. He further added that land adjacent to the reserve could also be considered.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>Refer to response provided for no. 471 regarding biodiversity offsets.</i>

5.5 Quarries and Borrow Pits

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
325.	A Blackmore asked if the quarries will be located within the dam basin.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		H Pieterse confirmed that this will be the case, based on the current geotechnical investigations.

5.6 Hydropower

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
326.	A Blackmore asked about the infrastructure associated with the proposed hydropower plants, such as power lines.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		H Pieterse explained that the feasibility of hydropower still needed to be explored by Umgeni Water. She further noted that external power would be required for the Water Treatment Works to allow for maintenance periods.

5.7 Construction

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
327.	R Faure asked about the location of the construction camps.	R. Faure (Ezemvelo KZN Wildlife)	✓	✓	✓		H Pieterse indicated that at the Langa Balancing Dam it would be situated within the basin and at Smithfield Dam it will be located alongside the dam wall outside of the basin.

5.8 Water Resource Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Ezemvelo KZN Wildlife – 16 March 2015							
328.	A Blackmore enquired whether it was certain that Impendle Dam would need to be built.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		K Bester explained that it was dependent on other possible options to augment water supply such as desalination and reuse.
329.	A Blackmore noted that siltation is a big problem in KZN and emphasised the need for catchment management.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		H Pieterse indicated that the Feasibility Study is investigating the impact of the project on the downstream silt regime. <i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>
330.	A Blackmore asked if catchment management was included in the costing of the project.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		D Henning indicated that the EIA would further consider the management of the ecological infrastructure. However, no direct cost provision was made for catchment management. <i>Refer to responses provided for no. 186, 302, 471 and 507 regarding Ecological Infrastructure.</i>
331.	A Blackmore stated that the releases from Smithfield Dam needed to mimic natural flow.	A. Blackmore (Ezemvelo KZN Wildlife)	✓	✓	✓		K Bester indicated that this would form part of the dam operating rules and will be done.
Source: Meeting with eThekweni Municipality – 02 March 2016							
332.	R Dyer asked by how much Smithfield Dam will reduce the sediment load in the uMkhomazi River.	R. Dyer (eThekweni Municipality)	✓				A Mather indicated that the reduction in yield represents a reduction of 18% of all the inland sand load of all the rivers, based on the findings of the recent study by the Department of Water and Sanitation (DWS). <i>The simulated net effect of the proposed dam is a 46 000 m³/a reduction in sand load at the mouth.</i>
333.	A Mather noted that after Hazelmere Dam, DWS had indicated that future dams will be built off-channel. He further stated that the uMkhomazi River is a substantial contributor of sediment to the coastline. If the impact of the project on the sediment regime is not addressed then it will lead to significant costs to the eThekweni Municipality. As an example, he noted the major impacts caused by	A. Mather (eThekweni Municipality)	✓				<i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	impoundments on the Umgeni River. He emphasised that the municipality needs the sediment to maintain its coastal assets.						
334.	A Mather indicated that the financial burden of the impact on the sediment regime will need to be borne by either DWS or the municipality.	A. Mather (eThekweni Municipality)	✓				<i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>
335.	J Brahmin stated that the sand is required and that problems have been experienced with erosion along the coastline. He noted that Durban's beaches are the largest driver to tourism in the area and need to be adequately safeguarded.	J. Brahmin (eThekweni Municipality)	✓				<i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>
336.	B Pfaff asked how much sediment the municipality is getting from the port's sand pumping scheme.	B. Pfaff (eThekweni Municipality)	✓				A Mather explained the current status. He further discussed off-shore dredging and the associated costs.
337.	A Mather to provide rough costs for dredging, to allow for this to be explored further as a potential mitigation option.	A. Mather (eThekweni Municipality)	✓				Action for A Mather. <i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>
338.	A Mather noted that sand mining needs to be promoted upstream of the Smithfield Dam and stopped in the downstream reach of the river. He mentioned the currents problems related to the regulation of illegal sand mining.	A. Mather (eThekweni Municipality)	✓				<i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>
339.	J Brahmin asked if dredging or the flushing of sediments at Smithfield Dam could not be considered.	J. Brahmin (eThekweni Municipality)	✓				K Bester noted some of the constraints in this regard. However, these options will be investigated further and feedback will be provided.
340.	A Mather also asked about the possibility of a sand trap upstream of the dam.	A. Mather (eThekweni Municipality)	✓				The constraints with such a system were discussed: very expensive, another EIA required, and loss of yield during flushing were some of the issues. <i>Impacts of the project on the sediment regime to be considered further in the EIA Report. Refer to response to no. 184 regarding impacts to the sediment regime.</i>

5.9 General

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 25 March 2015							
341.	<p>1. Thank you for the presentation to the Msunduzi Municipality Portfolio Committee on the proposed UMkhomazi River Water Transfer Scheme.</p> <p>2. It is pleasing to note that the use of the Mkomaas River to augment the supply of water is receiving attention. The use of the Mkomaas River as a means of water supply and storage would appear to be long overdue.</p> <p>3. The proposal appears to be massive and very challenging.</p> <p>4. The following comments are made: a. "Millions m³/a". Does "a" refer to "annual"? b. "Including growth in the Darville Return flows". What is the significance of the Darville Waste/Disposal Works regarding the project? c. Deviation of Provincial Route 617 (Main Road 316). Has this deviation been discussed with the KZN Department of Transport with particular reference to the alignment, gradient, private accesses and possible bridges? d. Comparison between Smithfield Dam and Midmar Dam. It is noted that the height of the proposed Smithfield Dam will be approximately 3.3 times higher than the existing Midmar Dam. Midmar Dam wall has been raised from its original height. Does this indicate that the proposed dam could be more expensive than a</p>	B. Millard	✓	✓	✓	✓	<p>1. Noted.</p> <p>2. Noted.</p> <p>3. Noted.</p> <p>4a. Correct, water resources planning use the unit million m³/a, while municipalities and Umgeni Water use MI/day</p> <p>4b. Darvil waste works treat most of the effluent from Msunduzi. This is then returned to the Mgeni River, therefore the yield of the Mgeni WSS includes the return flow that is growing over time. – please refer to the documents on the KZN coastal metropolitan reconciliation strategy for more detail.</p> <p>4c. This was mentioned to the KZN DoT at the EIA Authorities meetings, and should be taken further in the next phases.</p> <p>4d. The storage capacities of Midmar and Smithfield dams are in the same order, and unfortunately we don't have the capital cost of the initial Midmar and the subsequent raising to compare with the propose cost for Smithfield Dam. However, it must be noted that Smithfield Dam will have a 1:100 year yield of 220 million m³/a, about 3.3 times the 1:100 year yield of 66.3 million m³/a of Midmar Dam (refer to the Umgeni Water Master plan, p 134), before augmentation from the Mooi River.</p> <p>4e. Normal DWS security measures at the dam, tunnel inlet and outlet will be applicable for the scheme, and a servitude will be register for the length of the tunnel.</p> <p>4f. An economical comparison was made of the potable water pipeline's two scenarios, and it was confirmed that one pipeline is the preferred. This report has not been finalized, but will soon be</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>similar Midmar Dam with the same water capacity?</p> <p>e. The tunnel is stated as 32 Km long. It is noted that the proposed tunnel will be 3.5 metres in diameter. Has consideration been given to the security of the tunnel?</p> <p>f. Reference is made to a 1 x 2.7 metre diameter pipe or 2 x 2.2 metre diameter pipes. Would it not be more economical to lay one pipe instead of two pipes? Some background information would be appreciated.</p> <p>g. Reference is made to "P and Gs" at 25%. This appears high. Would you please indicate what is included in this item.</p> <p>h. Reference is made to Contingencies at 25%. This would appear high. Is there any particular aspect that requires a Contingency figure of 25%.</p> <p>i. The total capital cost is indicated as R16156 million excluding Vat. i.e. R18828 million including Vat. Say R 19 000 million. Should R19 000 million not be the figure that is brought to the notice of the decision makers?</p> <p>5. I am not aware of the construction period for the project. It is doubtful whether Government/Treasury will provide sufficient funds over a short period of time to enable construction to be completed in the shortest possible time. Does this mean that some parts of the project, although completed, may not be commissioned on completion?</p> <p>6. It would be appreciated if you would please indicate the location of the proposed Smithfield Dam in relation to the nearest town or land mark.</p> <p>7. It is noted that Environmental Impact Assessment Public Meetings will be held in the near future. Are you able to please indicate whether a Public Meeting</p>					<p>published.</p> <p>4g. The Preliminary and General items were not itemized, but normally include the Contractor's items. At feasibility stage the objective is to optimize and size the preferred layout of the scheme. Therefore, most of the detail will only be clarified during the design phase.</p> <p>4h. At a Project Management Committee meeting it was advised by DWS to use 25% to adequately provide for the project budget, since projects that were recently implemented shown that the cost increased substantially from feasibility to final implementation.</p> <p>4i. During the optimization of the scheme VAT is not shown, although VAT will be included in future documents.</p> <p>5. The construction period is approximately 5 years. The complete uMWP-1 (raw and potable water) will be implemented during the 5 years, since the Mgeni WSS will already experience a shortfall for several years at that point in time. Current recommendations for funding are that the project be funded off-budget using private sector debt funding, with the possibility of a small portion funded by National Treasury to accommodate households earning less than R3200/month.</p> <p>6. Smithfield Dam is situated about 18 km east of Bulwer and about 6 km south-east where the R617 Road crosses the uMkhomazi River See Figure 1 below.</p> <p>7. Meeting venues will be published by the EIA team, but meetings will be held in the study area at places such near the Smithfield Dam, at Baynesfield Estate, at Umlaas Road, etc. Your name has been added to the Stakeholders List and you will be notified.</p> <p>8. You can access the documents on the DWS website: https://www.dwa.gov.za/Projects/uMkhomazi/default.aspx. During the public meetings hard copies of the EIA will be placed at selected venues as advertised.</p> <p>9. Go to DWS website: https://www.dwa.gov.za/Projects/uMkhomazi/default.aspx – select</p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>will be held in Pietermaritzburg?</p> <p>8. Are you able to please indicate where a hard copy of the documents can be accessed?</p> <p>9. To assist me it would be appreciated if you would please indicate how the website should be accessed to obtain more detailed information such as the glossary of terms, details on the relocation of Provincial Route 617 and other engineering aspects.</p> <p>10. From a recent report in a Durban newspaper, it would appear that:</p> <p>i. 15% of water remaining in a dam is not usable because it is sludge</p> <p>ii. At present water loss in eThekwini stands at 39% and the major causes of the loss are leaks in the infrastructure and illegal connections</p> <p>iii. R300 million per annum is required by eThekwini to deal with the water leaks and ageing infrastructure in eThekwini.</p> <p>11. It is not clear why municipalities are not attending to the lack of maintenance as this impacts on their income. This would appear to be a prime reason to alert municipalities on their lack of performance.</p>					<p>the Documents and Reports tab.</p> <p>10(i). This probably refers to Hazelmere Dam. The percentage of storage lost due to “sludge” is a unique characteristic of the dam basin and sedimentation in the catchment. In the design and subsequent analysis of a dam, provision is made loss of storage due to sedimentation in a dam for a 50 year period.</p> <p>10(ii). Water Conservation Demand Management (WCDM) is and remains a high priority for DWS and municipalities and are addressed.</p> <p>10(iii). Noted.</p> <p>11. As mentioned, municipalities are required as per the National Water Act to address WCDM, and DWS requires regular feedback on this.</p>	

6 COMMENTS AND RESPONSES – REVIEW OF THE DRAFT EIA REPORTS

6.1 Alternatives

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
342.	M van Deventer queried the selection of WTW Option 1 as the preferred option, as the specialists were divided in their findings.	M. van Deventer (Baynesfield Estate)				✓	D Henning indicated that the preferred option for the WTW was identified in the EIA Report (uMWP-1 Potable Water) through a balanced appraisal of the recommendations of the specialists, technical considerations and the comparison of the impacts.
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
343.	R Cassimjee requested clarity with regards to the preferred pipeline route in the Umlaas Road area. He asked whether there is a single pipeline with various alternative alignments or multiple pipelines.	R Cassimjee				✓	D Henning showed the preferred route on a map that was included in the presentation. He indicated that the other routes on the map were alternative alignments.
Source: Correspondence (Email) – 04 July 2016							
344.	I find it difficult to understand how an on-stream dam is being considered as a means of providing water, when the impacts from this project will lead to deterioration of the very resource on which so many people rely for their lives and livelihoods. The EIA has failed to effectively look at alternatives to dealing with the water supply issue – only at the “business as usual” approach to water supply – build a dam and pipe the water! The world has moved on, our planet is struggling to cope to support our lives, so surely we have learnt to do things differently, including water storage and supply?	J. Bell	✓	✓	✓	✓	<i>Refer to responses to no. 9, 10, 162 and 163 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/ Projects/uMkhomazi/documents.aspx).</i>
Source: Correspondence (Email) – 05 July 2016							
345.	What part of Government or society, or organisation, in South Africa actually deals with “The world has moved on, our planet is struggling to cope to support our lives, so surely we have learnt to do things differently, including water	R. Crankshaw	✓	✓	✓	✓	<i>Query linked to email from J Bell - see no. 344.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	storage and supply?"						
Source: Correspondence (Email) – 4 August 2016							
346.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>Thank you for your email and the attached orthophoto and topographical map. I see these only indicate where one of the two options will run, could you please send me (via email) an orthophoto and topographical map which indicates both option A and B as soon as possible.</p>	B. Seele		✓			<p>Note that initially the following two options were identified for the alignment of the tunnel:</p> <ul style="list-style-type: none"> • Option A: Tunnel to Langa Balancing Dam; and • Option B: Tunnel to Baynesfield Balancing Dam. <p>Following optimisation of the scheme as part of the Technical Feasibility Study the Baynesfield Balancing Dam and Option B of the tunnel were eliminated. <i>Refer to response to no. 349 for reasons why the Baynesfield Balancing Dam option was discarded.</i></p>
347.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>Have all IAPs been informed of this?</p>	B. Seele		✓			<p>Yes, we've explained it in the EIA Report and it was also communicated at the recent round of public meetings, which was also attended by two representatives from Trewirgie Farm.</p> <p>Please let us know if there are other specific landowners that we need to highlight this to. We can also create zoomed-in maps for these parties, focusing on specific properties.</p> <p>A meeting was held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p>
Source: Correspondence (Email) – 5 August 2016							
348.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>Perhaps sending an email to all directly affected landowners about the updated choice of option would be a worthwhile step in this process. Informing the public in order for them to be able to participate is essential during this entire EIA process. Even though meetings were held, many people are unable to attend these, and it is important that all IAPs receive information via alternative means such as email.</p> <p>"Yes, we've explained it in the EIA Report" - are you referring to the draft report or the final report?</p>	B. Seele		✓			<p>As per the suggestion, we sent out an email to Interested and Affected Parties with the Comment Sheet and indicating which are the preferred options for the scheme.</p> <p>The EIA Report (currently in draft format) deliberately has certain sections to convey the necessary information to I&APs. In the case of the alternatives, this is explicitly presented in the Executive Summary and elaborated on under the project description, profile of the receiving environment (mapping), assessment of impacts, comparative analysis of alternatives to select the Best Practicable Environmental Option and ultimately the Environmental Impact Statement. What was presented at the public meetings is merely an extract of the EIA Report. Note that the EIA also considered new alternatives that were suggested by</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							I&APs, as discussed in the Scoping and EIA Reports. Numerous meetings were held with landowners to discuss specific project components (notably the balancing dam, WTW, raw and potable water pipeline, as well as the access roads. In terms of the tunnel, Option B was discarded due to unfavourable geotechnical and topographical conditions, as well as higher costs, associated with enlarging the existing Baynesfield Dam to provide the necessary storage capacity required.
349.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>Thank you for the information provided. As a directly affected landowner of Dunbar estate portion of Trewirgie Farm, I would like to politely request that landowners are contacted directly about any decisions made. I feel that Nemaï consulting needs to make a more concerted effort to directly, if not personally, contact all directly affected landowners.</p> <p>As a very concerned landowner, I believe I have the right to request detailed responses to requests for information. Could I ask for more detailed information on why option B was eliminated.</p>	B. Seele		✓			<p><i>Refer to response to no. 656 regarding the communication of the preferred options to I&APs.</i></p> <p>One of the options that were initially considered for the balancing dam as part of the Technical Feasibility Study (discussed in the Scoping Report and draft EIA Report) included enlarging the existing Baynesfield Dam to provide the necessary storage capacity required. A detailed analysis of Baynesfield Dam revealed that this option could not be considered for the following reasons:</p> <ul style="list-style-type: none"> • Integrity of the existing Baynesfield Dam wall; • The levels of the dam. The balancing dam will need to be constructed to provide for the correct levels to gravitate, which will result in a dead storage of about 50% of the volume; • Current users will need to be accommodated, resulting in detailed management of the dam. This may result in conflicting operating rules; and • The raw water pipeline around the proposed Baynesfield Dam would have encountered problems when laying the pipeline in high ground on the right side of the dam, and in saturated conditions. <p>In addition, the new footprint of the Baynesfield Dam would be considerably larger than the existing inundation area of the current dam. The new footprint would impact on grassland, wetlands, CBA areas (Irreplaceable and Optimal) and would encroach into the Blue Swallow nesting area to the west of the current dam. Cultivated areas and forestry plantations will also be affected, as well as 10 chicken houses. The new footprint will also inundate two sections of the district road and a number of private access roads, which will need to be deviated (with associated impacts).</p> <p>The Baynesfield Dam was therefore discarded and alternative</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							dam sites were investigated. Option B of the tunnel, which is linked to the Baynesfield Balancing Dam option (refer to Figure 63 in the draft EIA Report), was also thus discarded. As per the suggestion, we sent out an email to Interested and Affected Parties with the Comment Sheet and indicated which are the preferred options for the scheme.
Source: Correspondence (Email) – 5 August 2016							
350.	<i>Follow-on email – refer to no. 650.</i> I appreciate the email with information on the decided tunnel route option and attached comment form.	B. Seele		✓			Confirmation noted.
Source: Correspondence (Email) – 10 August 2016							
351.	As discussed being a new owner to the area I have been a little late in finding out about the details of this project and therefor am in the process of aligning with yourselves to ensure that we can support where necessary and ensure we have a solution which best fits our Vegetable farming enterprise both now and into the future. Herewith the details you requested: <ul style="list-style-type: none"> A - Property 1 - Three 60 Farming Pty Ltd (property owner) - Cripple Creek Farm, Sub 20 (of 5) of the Farm Brasfort Park No. 1295, Registration Division FT, Province of Kwazulu-Natal B - Property 2 - Three 60 Farming Pty Ltd (property owner) – Cripple Creek Farm, Rem of Portion 24 (of 5) of the Farm Brasfort Park No. 1295, Registration Division FT, Province of KwaZulu – Natal Managing Partner: Roger Thompson 083 484 0834 360farming@gmail.com	R. Thompson				✓	The pipeline was initially routed to follow the D360, as it is common practice to route pipelines alongside roads. At a point in the study however, it became apparent that a 45 metre wide combined permanent and temporary servitude would be required to construct the pipeline. The 45m width would comprise a 15 metre permanent servitude with working space of 17.5m and 12.5m on either side of the permanent servitude to accommodate the various access, storage and construction activities. This would mean that the road would be out of commission for the duration of construction in that area, which would affect all the farmers. This was the overriding factor, apart from environmental considerations, that lead to selecting Option 1B as the preferred route.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Comments:</p> <p>I note from the maps received that there are currently two route options for the Potable water pipeline. Although note entirely clear on the map it would appear that option 1B runs directly through the centre of our main farming operation and through an area ear-marked for Green houses in the future, if not where our current reservoir/ workshop and pack shed are situated. We also have an extensive underground piping infrastructure which supplies water to roughly 40 water hydrants over the 30 odd hectare area on Portion 20, including the various establishments on the property from Pack shed to compounds.</p> <p>Option 1C appears to route along the D360 road and would be a far more preferable option for us negating many of the foreseeable challenges of a pipeline through our property and I would imagine for the project partners too.</p> <p>I understand that route 1C may involve some challenges i.t.o road usage and access but believe this would be a short lived issue during the installation phase but thereafter would pay dividends. We would be willing to assist where we can to minimise disruption to road users as we ourselves are reliant on the D360 as our main roadway in and out of the area.</p> <p>If there is any further information required from me at this stage please don't hesitate to contact me.</p>						
Source: Correspondence (completed Comment Sheet) – 12 August 2016							
352.	<p><i>Linked to no. 377.</i></p> <p>9. Request for further information Numerous requests were made to Kobus Bester, DWS for further information on alternative options that would not threaten Blue Swallows, such as maintenance on existing structures to reduce the</p>	B. Seele		✓			<p><i>Refer to response provided for no. 9 regarding alternatives.</i></p> <p>Section 9.1 of the draft EIA Report provides information on the various alternatives considered to supplying the demands of the Integrated Mgeni WSS, which include measures to increase the water resource, desalination, re-use, Water Conservation and Demand Management, as well as use of groundwater.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	high % of water lost through leaks in the greater Durban area, and on more detailed information pertaining to drilling under Trewirgie Farm. To date no reply was received. This information could not be accessed in any other project-related documents available online.						<p>The Pre-feasibility Study included inter alia an investigation of eight augmentation schemes on the uMkhomazi River preceded by scheme identification and reconnaissance investigations. Following technical, environmental and economic comparisons of the schemes, the Pre-feasibility Study recommended that the Smithfield Scheme be taken forward to the next phase of investigation in a detailed Feasibility Study. This information is included in Section 9.1.5 of the draft EIA Report.</p> <p><i>DWS Response: Representatives of Trewirgie Farm have been part of the EIA process from the beginning. The alternatives were explained during public meetings. Unfortunately B Seele did not attend these meetings, however, representatives of Trewirgie Farm did attend the previous EIA meetings.</i></p> <p><i>According to the WRC "The State of Non-Revenue Water in SA 2012" SA non-revenue water (36.8%) compares well with international standards which is 36.6%. eThekweni is currently at 40.6 %, they have set a very high target of 30.7% but one should assume that if they can reach international standards they will do good. This will reduce the water use by 4%. If the Metro can achieve this about 15 M m³/a will be available for re-distribution unfortunately this will not solve the long term requirement of about 220 M m³/a.</i></p> <p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>
Source: Correspondence (Email) – 14 August 2016							
353.	I was hoping that you would come and see me to discuss some matters after your last public participation meeting in Baynesfield. For the sake of good record I would like to have the following points noted; 1) Baynesfield Estate is not happy with the site selected for the water treatment works. The alternative sites have been recommended by some of the specialist studies and we are of the opinion that the landowners preference should take precedence when opinion is so divided.	M. van Deventer (Baynesfield Estate)				✓	<p>Meeting subsequently held with M van Deventer on 18 August 2016.</p> <p>WTW Option 1 was selected as the BPEO based on a balanced appraisal of the recommendations of the specialists, technical considerations and the comparison of the impacts. Although the specialists were divided in their selection of the preferred option for the WTW, there were no fatal flaws associated with WTW Option 1.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 14 August 2016							
354.	<p>Module 2 of the project, which follows the pre-feasibility studies, comprises the environmental impact assessment of the raw water component of the inter-basin transfer scheme. Coastwatch is concerned about potential downstream impacts of the in-stream Smithfield Dam on the uMkhomazi estuary and associated marine environment.</p> <p>Various alternatives to supplying the demands of the Integrated Mgeni WSS have been considered and they are discussed. The alternatives which have been screened include measures to increase the water resource, desalination, re-use, water conservation and demand management, as well as the use of groundwater. In-stream storage was not considered to be viable for this project (explained in Section 9.15.1) and Coastwatch's contention that restoration of ecological infrastructure be considered as a measure which would enable the size of the dam to be reduced has been considered, however this measure comes too late to influence this specific project.</p> <p>Despite the outcomes of the pre-feasibility study Coastwatch is extremely concerned about the intended damming of this strategic river.</p> <ul style="list-style-type: none"> Impacts of an in-stream dam are not unknown yet it is being considered as a means of providing water when the impacts from the project will lead to deterioration of the very resource on which so many people rely for their lives and livelihoods. The EIA has failed to effectively look at alternatives to dealing with the water supply issue and has undertaken the "business as usual" approach to water supply which is simply to build a dam and pipe the water ie it assesses this pre-determined option rather than fully evaluating the full range of environmental impacts of this option against 	C. Schwegman (Coastwatch KZN)	✓	✓	✓		Refer to responses to no. 9, 10, 162 and 163 regarding alternatives to the project that were considered. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/ Projects/uMkhomazi/documents.aspx).

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>others. With the planet struggling to support humanity we need to adopt new approaches, including water storage, supply and use.</p> <ul style="list-style-type: none"> • 						
Source: Correspondence (Email) – 17 August 2016							
355.	<p><i>Follow-on email – refer to no. 351.</i></p> <p>Thanks for the response. I still believe we can work toward a solution that would reduce the inconvenience of road closures etc. The option as it stands is far from optimal for us agriculturally and I would imagine would have more longer term cost associated for all parties. Would you be in a position to meet me onsite at your earliest convenience so we can look at some possible alternatives.</p>	R. Thompson				✓	<p>As part of the EIA a 100m corridor was assessed, which provides limited flexibility for the shifting of the route. However, there are other technical factors that need to be considered before the alignment can be changed.</p> <p>Would you be able to indicate what alternatives you had in mind? We could then provide feedback as a project team, which may also include a site visit.</p> <p>I've also requested that Umgeni Water's land acquisition team get into contact with you in the interim.</p>
Source: Correspondence (Email) – 24 August 2016							
356.	<p><i>Follow-on email – refer to no. 351.</i></p> <p>An alternative would be an "Elbow" where the pipe meets the first boundary on our property diverting the pipeline back toward the D360, where it would then bend left to follow the D360 along the full length of our boundary with the D360 road. If I recall correctly there was a similar option previously but in that instance the bend occurred somewhere back toward the R56.</p> <p>I would welcome contact from the L.A. team as well as an on-site meeting by interested parties.</p>	R. Thompson				✓	<p>An additional route option for the potable water pipeline was assessed following a site visit with R. Thomson on 22 September 2016. Following an evaluation of this it was decided to accommodate a deviation to the alignment in the western section of the project area, with the addition of route Option 1AA.</p>
Source: Blue Swallows Working Group Meeting – 12 September 2016							
357.	<p>S Lekota stated that apart from technical and economic factors the analysis of alternatives needed to also consider the environment. He also indicated that the mitigation hierarchy needed to be applied to the impacts identified as part of the project.</p>	S. Lekota (DEA)	✓	✓	✓	✓	<p>D Henning noted that environmental factors had also been included in the assessment of the alternatives.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
358.	B Seele noted that they could argue for an alternative route for the tunnel.	B. Seele		✓			D Henning indicated that a change in the tunnel alignment is under technical consideration and a write-up on this will be included in the final EIA Report. <i>Note that feedback on the feasibility of the re-alignment of the tunnel route will be provided by DWS at the next Blue Swallows Working Group meeting.</i>
Source: Correspondence (Letter) – 26 September 2016							
359.	<p>Analysis of alternatives</p> <p>Page 588 of the Raw Water EIA states that: <i>The uMWP-1 transfer scheme is deemed to be the most viable option to provide a large volume of water to fulfil the long-term water requirements of the Mgeni system.</i></p> <p>However on page 61, it is stated that: <i>Apart from the uMWP-1, the options under further investigation for supplying water to the region include:</i></p> <p><i>Re-Use: There are two wastewater re-use projects under investigationcertain Waste Water Treatment Works were identified to be suitable for domestic re-use purposes based on their location, return flow volumes and the industrial portion of the effluent volume</i></p> <p><i>Desalination: A study to investigate the feasibility of desalination of sea water as an option to provide additional domestic water is being undertaken by Umgeni Water</i></p> <p>How can the recommendation be made that the transfer scheme is the most viable option when other feasibility studies are still being investigated?</p> <p>Waste water reuse and desalination are alternative options and as such should be reported on in full. They cannot be analysed if they are under further investigation or if their feasibility is still under investigation - resulting in the inability to compare their impacts, costs, lifespan etc with the proposed</p>	P. Rees (DUCT)	✓				<i>Refer to responses to no. 9, 10 and no. 162 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx).</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>uMkomazi Dam project. These feasibility projects need to be completed transparently and included in the uMkomazi EIA report properly as per our DUCT comment of November 2013 in which we referred to the 2004 SA Substantive Report On Dams regarding alternate options. It seems these recommendations have been ignored, as have our requests of November 2013 as per the following points in the SA substantive report on dams:</p> <ul style="list-style-type: none"> • page 17: It is also accepted that construction of dams is just one option of many to be considered in water and energy planning processes. The range of options includes water and energy demand management, alternative sources of energy, and integrated catchment management. • Page 29: B 2.6.10 (15).to partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution" • Page 39: B3.6.3the studies for these alternatives should be undertaken by experts in each of the option fields.... These studies should then be subjected to external review to eliminate the suspicion that there may be inherent bias in the analysis and the outcomes. Stakeholders should participate in identifying the terms of reference for consultants and in reviewing the study methodology and outputs. • B 3.6.3 Where several alternatives are under consideration, the studies for these alternatives should be undertaken by experts in each of the option fields, to the same level of detail. These studies should then be subjected to external review to eliminate the suspicion that there may be inherent bias in the analysis and the outcomes. Stakeholders should participate in identifying the terms of reference for consultants and in reviewing the study 						

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>methodology and outputs.</p> <p>In addition to the above, we regret that other concerns raised by DUCT in previous comments have not been satisfactorily answered. As follows as per November 2013 comment submitted:</p> <ul style="list-style-type: none"> • We are concerned that the plans to build the Smithfield Dam on the uMkomaas River is in contradiction of the recommendations of the 2004 SA Substantive Report On Dams as this is one of the last free flowing rivers in KZN. <ul style="list-style-type: none"> ○ Please explain why this recommendation is being ignored <p>We recently undertook a funded research project on various aspects of the impacts of large dams with a view to using at Smithfield Dam any lessons learnt during Springrove Dam construction. The attached appendix 2 contains extracts from this research on Springrove dam which is pertinent to Smithfield Dam and we trust that these issues will be dealt with. Where relevant, problematic issues that were identified at Springrove have been left for reference in the hopes that the mistakes will not be repeated at Smithfield</p> <p>We are of the firm belief that until all alternative water supply options have been thoroughly researched, presented and exhausted, the submission of the Environmental Impact report on the uMkomazi Dam is premature and incomplete.</p>						

6.2 Terrestrial Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Amaqadi Traditional Council & Community (Deepdale) – 13 July 2016							
360.	B Sokhela enquired about the impacts to vegetation as a result of the proposed Smithfield Dam.	B. Sokhela	✓	✓			D Henning indicated that a search, rescue and relocated plan would be developed for red data, protected and endangered species and medicinal plants. He indicated that other mitigation measures are also included in the EIA Report.
Source: Meeting at Baynesfield Club – 14 July 2016							
361.	S McKean enquired whether the loss of ecosystem goods and services had been taken into consideration.	S. McKean (Ezemvelo KZN Wildlife)	✓	✓	✓	✓	D Henning indicated that the relevant specialist studies quantified the loss of ecosystems and determined the status of these systems. <i>Refer to response provided for no. 471 regarding biodiversity offsets.</i>
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
362.	H Mbatha noted that sensitive bird species occur on his property, such as Blue Swallows and cranes.	H. Mbatha				✓	D Henning explained that information pertaining to Blue Swallows, which is a Critically Endangered species, had been sourced from Ezemvelo KZN Wildlife and a dedicated Avifauna Study had been undertaken as part of the EIA. He further noted that the mitigation strategy proposed as part of the EIA included creating a working group with key parties such as Ezemvelo KZN Wildlife, Endangered Wildlife Trust and BirdLife South Africa, as well as implementing a monitoring programme that considers avifauna, vibration and noise. He indicated that other mitigation measures in terms of Blue Swallows are also included in the EIA Report (uMWP-1 Raw Water), such as controlled blasting and avoiding sensitive areas during the breeding season. <i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i> H Mbatha requested to be contacted by the Avifauna Specialist. <i>The specialist subsequently contacted him.</i>
Source: Correspondence (Email) – 14 July 2016							
363.	At our meeting today I represented The Mbatha Family trust 1. I need to be contacted on Swallows, Blue Crain and crown cranes also on other Bird species.	H. Mbatha				✓	As requested, Mr Mbatha was contacted by the Avifauna Specialist.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 1 August 2016							
364.	<p><i>Linked to no. 650.</i></p> <p>3. As a landowner of natural grasslands where Blue Swallows nest, I feel that this project severely threatens these already highly endangered species. Please could you send me documentation of what exactly has been documented and recorded on the effect that the drilling and pipeline laying will have on these birds.</p>	B. Seele		✓			<p>The sensitivity of the project area in terms of avifauna, and in particular Blue Swallows, is acknowledged in the initial Scoping Report and subsequent EIA Report. This is based on the findings of the Avifauna Study (which included an appraisal of various data sources and fieldwork), engagement with authorities (including Ezemvelo KZN Wildlife) and input received from Interested and Affected Parties (e.g. BirdLife South Africa).</p> <p>The following project components and associated areas were highlighted by the Avifauna Specialist as posing high risks to Blue Swallows:</p> <ul style="list-style-type: none"> • The construction of the deviation of the R617 road will pose a risk to avifauna in the Impendle Nature Reserve and Important Bird Area; • The drilling and excavation of the tunnel below key Blue Swallow breeding areas pose a high risk to Blue Swallows breeding above on the surface; and • The construction of the balancing dam and associated infrastructure in a sensitive area for avifauna. <p>The following mitigation strategy is proposed:</p> <ul style="list-style-type: none"> • Establish Blue Swallows Working Group (including Ezemvelo KZN Wildlife, Birdlife SA, EWT, DEA, KZN EDTEA, WildSkies Ecological Services, DWS, Umgeni Water, TCTA and key landowners such as Baynesfield Estate and Trewirgie Farm). The first meeting is scheduled for 12 September 2016. • Implement an Avifauna Monitoring Programme (develop ToR with Blue Swallows Working Group) - <ul style="list-style-type: none"> ○ Specialist to conduct a thorough avifaunal walk through of all project components prior to construction, to identify any areas of particularly high sensitivity and requiring management during construction. This will include the identification of any sensitive bird species breeding sites and the development of case specific management measures for these sites to supplement existing mitigation measures identified as part of the EIA (as required). Sites to be mapped and recoded; ○ Ongoing baseline monitoring of recorded sites and other areas with high probability of occurrence (minimum of 12

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>month prior to construction) –</p> <ul style="list-style-type: none"> ▪ Blue Swallows; ▪ Noise and Vibration; <ul style="list-style-type: none"> ○ Determine noise and vibration limits / thresholds for Blue Swallows prior to construction in consultation with Blue Swallows Working Group; ○ Develop Blue Swallows Management & Mitigation Plan, which will be reviewed by the Blue Swallows Working Group before it is submitted to DEA for review and decision-making; ○ Monitoring during construction – <ul style="list-style-type: none"> ▪ Avifauna - status and impacts; ▪ Noise and Vibration - limits and baseline; and ○ Monitoring of status after construction. <ul style="list-style-type: none"> • Possible mitigation measures (based on components), which need to be confirmed in consultation with the Blue Swallows Working Group and to be detailed in the Blue Swallows Management & Mitigation Plan - <ul style="list-style-type: none"> ○ Noise and vibration attenuation (e.g. controlled blasting); ○ No construction during Blue Swallow breeding season in high risk areas, based on technical feasibility and findings of monitoring programme and with input from the Blue Swallows Working Group; ○ Determine requirements of BirdLife SA and EZKNW for encroachment into Impendle Important Bird Area and Nature Reserve, respectively; ○ Investigate possible biodiversity offsets (<i>refer to response provided for no. 471 regarding biodiversity offsets.</i>). <p>A specialist opinion was sought on the potential effects of vibration from tunnelling and other construction activities on Blue Swallows. The findings and recommendations from this opinion were included in the final EIA Report. Refer specifically to Sections 11.1.9 and 12.10.2 in the final EIA Report.</p> <p>It should be noted that the other tunnelling construction method considered was drill and blast. This method was discarded due to not only its high cost but also because of its highly obtrusive nature. This resulted in the selection of TBM construction method.</p>

Source: Correspondence (Email) – 4 August 2016

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
365.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>3. a) can you please specify when and exactly where this walk through will occur and in what season? This is very relevant for species food networks, migration patterns etc. The problem is not management during construction, the issue is that construction should not take place in sensitive areas.</p> <p>b)When will baseline noise and vibration values be established? If this is only during the project then it is too late, this needs to be done before the start of any form of construction.</p> <p>c) Active monitoring of Blue Swallow nests in the project area for the remainder of the project life-cycle (as deemed necessary - this is of great concern. Who will decide whether it is deemed necessary and who will do the monitoring?</p>	B. Seele		✓			<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p>The Pre-construction and Construction Environmental Management Programme appended to the draft EIA Report specifies (amongst others) the timing of the various mitigation measures, including those related to baseline monitoring and Specialist Environmental Investigations that need to take place in the pre-construction stage.</p> <p>The details of the Avifauna Monitoring Programme as well as the Noise and Vibration Monitoring Programme will be discussed with the Blue Swallows Working Group.</p>
Source: Correspondence (completed Comment Sheet and accompanying letter) – 7 August 2016							
366.	<p>The following properties were acquired by me in 1978: Portions of Drie Fonteinen no 854, Portions of Sevontein no 1313 and Minerva (portion of Dunbar Estates 1478) Together commonly known as Trewirgie. These properties were donated to my children in 2013 – 2015.</p> <p>From the onset our family took a keen interest in conserving large natural areas of the farm as the farm included stands of special plant communities and habitats of threatened species including nesting sites of the Blue Swallow (considered to be the most endangered bird species in South Africa).</p> <p>This effort of the family culminated in the farm being registered as a Natural Heritage Site in 1995 - Site No 231. Documentation of this registration is attached. Our efforts in conserving and looking after this site have continued unabated till the present. I</p>	Dr CA Seele		✓			<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response for no. 592 regarding the tunnel servitude.</i></p> <p>A meeting was held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	<p>am aware that the Natural Heritage Site Programme has been discontinued. However the fact that the farm was registered as a Natural Heritage Site does indicate very strongly how important the conservation of the natural environment of this farm was judged to be by the authorities.</p> <p>Our family is deeply committed to ensuring that the conservation of the natural environment of Trewigie continues into the future and is not affected in any way. While I am no longer formally the owner of Trewigie, I am still very much involved in the day to day activities related to the management of the natural environment of this farm.</p> <p>For the above reasons I wish to express my grave concern and opposition to the planned construction of the tunnel under Trewigie farm. Specifically:</p> <ul style="list-style-type: none"> • The effect on the Blue Swallow nesting during the construction of the tunnel • The damage to the sensitive natural environment that the 24m servitude (with provision for a road and extra working space) will have 						
Source: Correspondence (completed Reply Form) – 8 August 2016							
367.	<p>I, Ruth Seele, main trustee of Penarth Trust (part of Trewigie Farm), herewith state my objection to the planned construction of the tunnel under Trewigie Farm for the following reasons.</p> <p>1. The construction of the tunnel will have a direct negative impact on Blue Swallow nests in Trewigie Farm by causing the destruction of both the nests and associated ant-bear holes through vibrations associated with tunnel construction. Blue swallows often return to the same nest sites year after year, and the destruction of nests could lead to the birds abandoning all breeding efforts. The Blue</p>	Dr RM Seele		✓			<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response for no. 592 regarding the tunnel servitude and same or similar issues raised by Me M Seele, B Seele, Me M Seele and Dr CA Seele.</i></p> <p>A meeting was held with representative of the Trewigie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Swallow is highly endangered, and the entire project puts an already very threatened species and even greater risk of extinction.</p> <p>2. The construction of the tunnel, and the drilling and blasting of the vertical shaft, taking place on the neighbouring farm will have a direct negative effect on Blue Swallow activity and on Oribi activity, two highly endangered species.</p> <p>6. The construction of a servitude on Trewirgie Farm, will place both the biodiversity, and the safety of inhabitants at risk. Trewirgie Farm is a declared natural heritage site and should receive the necessary protection and conservation.</p>						
Source: Correspondence (Email) – 8 August 2016							
368.	<p>1. May I ask for the credentials and/or experience of Ronald Phamphe? And, in addition, whether this report was reviewed, as no signature is present?</p>	B. Seele		✓			<p>MSc; Professional Natural Scientist - Ecological Science with SACNASP, Professional member of SAIEES & SAAB.</p> <p>R Phamphe is a Professional Natural Scientist registered with the South African Council for Natural Scientific Professions, and therefore it is not necessary to have his reports reviewed by an external ecologist. D Henning noted that he reviewed the Terrestrial Ecological Impact Assessment compiled by R Phamphe as part of the internal quality management system.</p>
369.	<p>2. Pg iii states that 'no plant species of conservation importance were noted in Conveyance infrastructure and balancing dams area'. This is of great concern, as it misrepresents the actual current status. The Hilton Daisy, <i>Gerbera aurantica</i>, to name just one species, grows on Trewirgie Farm, and is under considerable threat of extinction due to habitat fragmentation and disturbance. These iconic plants grow in the area of the proposed servitude on Trewirgie. Could I request that a more thorough investigation of fauna and flora along conveyance infrastructure (or above) be done, as this report is severely lacking.</p> <p><i>Follow-on email on 12 August from B Seele, following response:</i></p>	B. Seele		✓			<p>Tables 2 and 4 indicate that the species <i>Gerbera aurantica</i> is known to occur in the area and Table 5 was updated to indicate the present of this species along the Conveyance Infrastructure (Trewirgie Farm). It was recommended to conduct a walk down survey before construction commences. All the plant species known to occur on the Trewirgie Farm are provided by B. Seele were included in the final report (Appendix A).</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>Therefore the statement on pg iii is incorrect, and I ask that this miselading statement please be revised.</p> <p>Please see attached additions to various tables. <i>List attached to email</i></p> <p>Table 3, pg. 38, it is stated that Gerbera aurantiaca is not endemic to South Africa. This is incorrect and a serious error: Gerbera aurantiaca is endemic to mistbelt grasslands of South Africa (http://redlist.sanbi.org/species.php?species=3196-3). Please could you re-check the endemic status of all species in this table.</p>						
370.	<p>3. Under 8.7, conservation: text seems to be missing: what is the status of this vegetation type? Please advise</p>	B. Seele		✓			This is updated in the latest version of the report.
371.	<p>3. Table 12 represents incorrect data, as at least 7 species on that Table occur on Trewirgie farm and Baynesfield estate, and therefore are affected by conveyance infrastructure.</p> <p><i>Follow-on email on 12 August from B Seele, following response:</i> The area affected by the conveyancing infrastructure includes a lot more than just Baynesfield estate. More than 4km of pipeline cross Trewirgie farm, declared a natural heritage site, and very important data from this area has been left out of the report, creating an incorrect summary of the state of terrestrial fauna and flora.</p> <p>Please see attached additions to various tables. <i>List attached to email</i></p>	B. Seele		✓			Some of the species indicated in Table 12 were provided by locals from Baynesfield Estate. Table 12, which is now Table 8 in the final report, was amended to include mammal species provided by the Seele family which could be affected by the Conveyance Infrastructure.
372.	<p>4. Table 15, as in no.3 contains misrepresented information, as many of these snakes, and many more that are not included in the table, occur commonly on Trewirgie Farm.</p> <p><i>Follow-on email on 12 August from B Seele, following response:</i></p>	B. Seele		✓			Some of the reptile species in this Table were provided by members of the local community. If there is any information missing, kindly forward it to us and we will include that in the final report. Table 15, which is now Table 13 in the final report, was amended to include reptile species provided by the Seele family which could be affected by the Conveyance Infrastructure.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Please see attached additions to various tables. <i>List attached to email</i>						
373.	<p>5. No nocturnal studies were done, which in an area such as the natal mistbelt and natal grasslands means big gaps in data. For example, no mention is made of the presence of tree dassie/hyrax, <i>Dendrohyrax arboreus</i></p> <p><i>Follow-on email on 12 August from B Seele, following response:</i> This explains my initial comment that desktop studies do not provide the information needed to assess the impacts of this project on terrestrial fauna and flora. Tree hyrax are nocturnal and can only be heard at night.</p>	B. Seele		✓			The desktop results (both SANBI and EKZMW data) did not make any mention of the possibility of finding this species on site, however, this will be included in the final report (Table 8). Only Rock Hyrax were observed in abundance on site.
Source: Correspondence (completed Comment Sheet) – 8 August 2016							
374.	<p>I am commenting on the proposed water pipeline that will cross Trewirgie Farm in the Baynesfield area.</p> <p>I am an affected and interested party as Trewirgie Farm is my home farm where I grew up and I still spend a lot of time on the farm as my family still live there.</p> <p>I am opposing this project for the following reasons:</p> <ul style="list-style-type: none"> Concern regarding the effect the drilling and laying of the pipeline will have on the natural environment on the farm, especially regarding the nesting blue swallows. These birds are very susceptible to any changes in the environment and they are critically endangered. Concern regarding the effect that the servitude will have on the Blue Swallows and also on the natural mistbelt grassland that is also endangered. 	Monika Seele		✓			<p>Please note that the proposal uMWP-1 tunnel crosses underneath Trewirgie Farm, and not a pipeline. This is of particular importance in terms of the depth of the tunnel and the construction technique, as opposed to pipeline that will be substantially shallower and which requires trenching.</p> <p>A meeting was held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p> <p>Refer to the layout and section of the tunnel in Appendix G in the draft EIA Report. Dunbar Estate 1478 and Driefontein 854 are located along chainages (km) 21000 and 26000. As shown in the aforementioned drawing, the maximum depth to invert along these chainages is 536m and the minimum depth is 355m.</p> <p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows and same or similar issues raised by Me M Seele, B Seele and Dr CA Seele.</i></p>
375.	The farm was previously declared a natural heritage site because of the pristine environment that has been preserved and a project of this nature	Monika Seele		✓			The sensitivity of the project area in terms of avifauna, and in particular Blue Swallows, is acknowledged in the initial Scoping Report and subsequent EIA Report. This is based on the findings

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	<p>will undoubtedly have an impact on this natural environment.</p> <p>The draft EIA Report does not highlight the threat of the pipeline on the Blue Swallows of which there are only 100 individuals remaining.</p>						<p>of the Avifauna Study (which included an appraisal of various data sources and fieldwork), engagement with authorities (including Ezemvelo KZN Wildlife) and input received from Interested and Affected Parties (e.g. BirdLife South Africa).</p> <p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>
Source: Correspondence (completed Comment Sheet) – 10 August 2016							
376.	<p>Concerns and objection to the proposed raw water conveyance tunnel:</p> <p>As part landowner of Trewirgie Farm, which lies above the proposed tunnel, I raise the following concerns and express my objection to the proposed raw water conveyance tunnel:</p> <p>1. Significant negative impact that the drilling and construction of the tunnel will have on the Blue Swallow breeding ground, and thus the Blue Swallow species.</p> <p>3. The environmental, economic and social impact the 24m servitude with the service road and working space will have. These include natural and endangered habitat destruction, negative impact on fauna and flora, loss of forestry income, as well as crime and safety risks that are associated with the construction, maintenance and usage of the service road and working space associated with the servitude.</p>	Maria Seele		✓			<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>
Source: Correspondence (completed Comment Sheet) – 12 August 2016							
377.	<p>I, Barbara Seele, directly affected landowner of Dunbar Estate portion of Trewirgie Farm, hereby clearly state that I am opposed to the Umkhomazi water project, especially to the tunnel (and associated drilling, prospecting and erection of servitude) that will run under Trewirgie. My reasons for this, as well as comments on the draft EIA report and associated documents, and further concerns</p>	B. Seele		✓	✓		<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response for no. 592 regarding the tunnel servitude.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>are listed and described below:</p> <p>1. Threat to Blue Swallow</p> <p>The proposed tunnel and balancing dam will threaten and negatively impact 14 of the 35 remaining breeding pairs of the critically endangered Blue Swallows (Little & McKechnie, 2012). This is of grave concern and I herewith ask the department of environmental affairs to protect and conserve these severely threatened species by choosing an alternate route of tunnel and alternate option for the balancing dam. The presence of people, vehicles and associated noise, as well as the direct vibrational impact of the drilling will have a negative effect on the activity and presence of the very sensitive and severely threatened blue swallow. In addition, drilling and blasting (for ventilation shafts) and associated vibrations can damage both the actual nest (small cup shaped clay and soil structure) as well as the ant-bear holes that these nests are built inside (cup shaped nest is attached to side walls of antbear/aardvark hole). This of great concern, as finding collapsed nests and nesting holes could cause breeding pairs to abandon breeding for that season, and not return the next. Therefore, even if tunnel construction only takes place outside of the breeding season, it could still have a direct negative effect on the following breeding season and success thereof. Blue swallows tend to return to the same nesting sites year after year, and are very sensitive breeders. If even only slightly disturbed (nests and birds), they can abandon nests/eggs and chicks. With the limited availability of ant-bear and artificial holes suitable as nesting sites, it could well be that the blue swallow cannot breed for that and subsequent seasons. With only 35 breeding pairs left in South Africa, it is of utmost importance that these birds are protected from any form of development. As a landowner and biodiversity custodian, with Blue Swallow nesting sites on my land, I urge the</p>						

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p>department of Environmental Affairs to assist in protecting these birds.</p> <p>2. Comment on specialist Avifauna draft report I hereby request that the specialist avifauna report include more information on the structure of Blue Swallow nests and the impacts that drilling vibrations could have on nest structure and nesting hole stability.</p> <p>12. Further comment on raw water EIA report The report downplays a) the critically endangered status of the Blue Swallow, b) the negative affect that drilling and blasting and dam construction will have on the Blue Swallow, c) the effect that vibrations from drilling and blasting will have on the Blue Swallow nests and d) the fact that this scheme threatens 15 of the remaining 35 breeding pairs left in South Africa (Little & McKechnie, 2012). This very important information needs to be included in the EIA report.</p>						
378.	<p>3. Further threats to biodiversity of Trewirgie Farm In addition to the Blue Swallow, construction of the tunnel and associated servitude, will have a negative impact on a number of other threatened fauna and flora species. Activity of the endangered Oribi antelope, a recurring resident of Trewirgie, as well as resident tree hyraxes, will be severely threatened by drilling of the tunnel and blasting of the tunnel shaft, proposed on the neighbouring farm. In addition, the erection of a servitude on sensitive and severely threatened mist-belt grasslands poses a threat to rare and endangered plants such as the Hilton Daisy (<i>Gerbera aurantiaca</i>), that occur in the area of the proposed servitude on Trewirgie Farm. In addition, associated plants, frogs and insects that occur on Trewirgie farm will be disturbed and threatened by any form of increased person and/or vehicle activity associated with the pipeline.</p>	B. Seele		✓		<p>Mitigation measures to manage impacts to fauna and flora are included in the EIA Report and EMPr (Pre-Construction and Construction).</p> <p>Apart from the inlet, central and outlet portals as well as the shafts for ventilation purposes, the tunnel runs below ground. The spoil material from the tunnel boring exercise will be removed and placed at new spoil sites that will be created at the inlet and central portals of the tunnel, and will be used in the construction of the dam wall of the balancing dam.</p> <p>Recipient site in terms of creating biodiversity offsets will be identified for rehabilitation as part of the KZN Biodiversity Stewardship Programme. <i>Refer to response provided for no. 471 regarding biodiversity offsets.</i></p> <p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>	

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p>4. Conservation status of Trewirgie Farm Due to the presence of several threatened species, and the high quality of mist-belt grassland and forests, Trewirgie Farm was registered as a natural heritage site in 1995 (please see attached documentation of registration with comment letter from Dr CA Seele), and the Seele family together with BirdLife South Africa is in the process of registering parts of the farm as a nature reserve. The proposed 24m servitude falls directly within this area, and threatens the sustained conservation of this important land. Trewirgie Farm is home to one of the last few remaining patches of KZN mist-belt grassland and KZN mist-belt forest, and I request that this be taken into consideration with respect to the proposed route of the tunnel.</p>						
379.	<p>13. Further comment on raw water EIA draft report On pg. 208 of the report it states: the remaining part of the tunnel (ca. 13km) traverses privately owned land that is predominantly used for commercial farming and forestry with patches of indigenous forest and improved grassland. This is incorrect and should state that it (at least 5km of tunnel) traverses privately owned land which was declared as a natural heritage site, is in the process of becoming a nature reserve, and has some of the last remaining, pristine patches of endangered Midlands mist-belt grassland (natural, not improved) and mist-belt forest and is home to critically endangered Blue Swallow nesting sites. Please can I urge you to make these important changes.</p>	B. Seele		✓		Note that this section of the draft EIA Report provides a generic explanation of the land use and cover for each of the major project components, based on Figure 99. The various environmental features and attributes are explained in the subsequent sections under the Environmental Profile (Section 10.3 – 10.21). Section 10.9.2.4 (see Figures 146 – 148) reflects the sensitivity of the project area in terms of avifauna.	
380.	<p>14. Further comment on raw water EIA draft report In response to the likelihood of the 'table of mammal species' overestimating the occurrence of mammal species, I would like to oppose this statement as the list does not include a number of important mammal species that reside on Trewirgie Farm and will be impacted by the scheme: Tree</p>	B. Seele		✓		<p>Table 6 indicates the mammal species recorded in the region, which is mostly likely an overestimate of the species likely to inhabit the area (examples of this will be mammal species such as Black Wildebeest, Leopard, etc, which commonly occur in the protected areas).</p> <p>Mammal species such as Tree Hyrax, Caracal, Samango Monkey and antbear were included in the final report (Table 8).</p>	

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	<p>Hyrax, Caracal and Samango Monkey. The effect that vibrations will have on antbear should be investigated as they live in burrows under the ground and will be directly affected by drilling and blasting. In addition, Blue Swallows rely on these antbear holes for nesting sites.</p> <p>15. Comment on terrestrial fauna and flora report Incorrect information was displayed in this report. Many flora and fauna species were left out of this report, e.g. it was stated that <i>Gerbera aurantiaca</i> is not endemic to South Africa, this is incorrect, as this important, and extremely threatened species is endemic to mistbelt grasslands of South Africa. I found the report to be severely lacking in depth (many common fauna and flora species found in the conveyance infrastructure area) were left out, and portraying incorrect information, e.g. 'no plant species of conservation importance were noted in Conveyance infrastructure and balancing dam's area' – pg iii. This is of great concern, as it misrepresents the actual current environmental status of the area. The Hilton Daisy, <i>Gerbera aurantica</i>, to name just one species, grows on Trewirgie Farm, and is under considerable threat of extinction due to habitat fragmentation and disturbance. These iconic plants grow in the area of the proposed servitude on Trewirgie. No effort was made to contact land owners of Trewirgie about the fauna and flora that occur in this biodiversity rich area. I herewith request that a more thorough investigation of fauna and flora along conveyance infrastructure (or above) be done, as this report is severely lacking and creates an incorrect impression on the status of fauna and flora along conveyance infrastructure affected areas.</p> <p>16. Further comment on terrestrial fauna and flora report</p>					The Hilton Daisy species is addressed in response to no. 362.	

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	Under section 8.7 conservation, text seems to be missing. What is the status of this vegetation type? Again, missing information in a report such as this is unacceptable. In addition, Table 12 represents incorrect data, as at least 7 species on that Table occur on Trewirgie farm and Baynesfield estate, and therefore are affected by conveyance infrastructure. Table 15, also, contains misrepresented information, as many of these snakes, and many more that are not included in the table, occur commonly on Trewirgie Farm. No nocturnal studies were done, which in an area such as the Midlands mist-belt forest and Midlands grasslands means big gaps in data. For example, no mention is made of the presence of tree dassie/hyrax, <i>Dendrohyrax arboreus</i> .						
381.	17. Establishing effect of vibration on Blue Swallow nests It is of vital importance that the sensitivity of Blue Swallows and Blue Swallow nests to vibrational disturbance be established BEFORE the closing period of public comments on the full EIA report so that the public have access to this important data. Research on the effects of vibration from drilling on (an artificially) constructed blue swallow nest can easily and quickly be done in a laboratory set-up.	B. Seele		✓			Refer to response for no. 364 regarding the management strategy for Blue Swallows.
382.	18. Comments on preconstruction and construction of EMPr In addition, please could the following be included in the report: Table 10 and 11, inclusion of the threat and possible extinction of Blue Swallows, as this project severely threatens 14-15 out of 35 breeding pairs left in South Africa, see specialist report and (Little & McKechnie, 2012). On pg. 37, no numbers are given, please include that this project threatens 40% of remaining blue swallow nesting pairs.	B. Seele		✓			Refer to Section 14 of the EMPr, which draws attention to sensitive environmental features such as Blue Swallows. Additional information included.
383.	20. Further comments on UMkhomazi Water Project Phase 1: Module 1: Technical Feasibility Study The construction of a ventilation shaft in close	B. Seele		✓			Refer to response for no. 364 regarding the management strategy for Blue Swallows. Specific mitigation measures – based on components & areas -

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			Smithfield Dam	Tunnel	Balancing Dam		
	vicinity to Trewirgie will have a direct impact on Blue Swallow nests. These cup shaped nests are fragile and barely attached to the walls of large antbear holes or manually dug holes. The vibration from drill and blast techniques used for the shafts can lead to the destruction of these nests. Blue swallows are very sensitive and return to the same nests year after year. With the limited availability of antbear and artificial holes suitable as nest sites, it could well be that the blue swallow cannot breed for that and subsequent seasons.						<ul style="list-style-type: none"> Noise and vibration attenuation (e.g. controlled blasting); and No construction during Blue Swallow breeding season in high risk areas (such as ventilation shaft), based on technical feasibility and findings of Avifauna Monitoring Programme as well as Noise and Vibration Monitoring Programme, with input from the Blue Swallows Working Group.
Source: Correspondence (completed Comment Sheet) – 14 August 2016							
384.	<p>My comments on the Draft EIA Report for the UMKHOMAZI WATER PROJECT PHASE 1 – RAW WATER COMPONENT relate to two issues:</p> <p>1) They relate primarily to my concerns about the threat which this water project, in particular the pipeline, poses to the critically endangered Blue Swallow population nesting in the affected area. Furthermore,</p> <p>2) Secondly, I am also concerned about the manner in which the potential threats to the Blue Swallow have been dealt with in the EIA process and the transparency and quality of the EIA process for this project to date, and feel that there has been a lack of transparency and insufficient attention paid to the severity of the threat to this critically endangered bird species.</p> <p>I will elaborate on these two issues below, and ask that you please respond to my comments in writing, and that you address my concerns in this EIA process.</p> <p>1) Threat to Blue Swallows:</p> <p>According to the Environmental Impact Assessment Draft avifaunal Specialist Study (direct quotes):</p> <p><i>“However the EIA phase now requires us to assess</i></p>	J. Cockburn	✓	✓	✓		<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p><i>this option, which will pass through the Impendle Nature Reserve and Important Bird Area. Given that the road will be on the lower slopes of the mountain, and in parts through settled areas, we believe the destruction of habitat to be of medium significance. However we note that Wakelin and Hill (2007) previously stated that no grassland within 4km of Bluw Swallow nests should be destroyed (which will occur for this road). Disturbance of birds such as Blue Swallows on top of the mountain (approximately 2km) by noise and vibration during road construction is a more serious concern.</i></p> <p>And:</p> <p><i>“The tunnel does pass under a core Blue Swallow <i>Hirundo atrocaerulea</i> breeding area, identified as an Important Bird Area. The drilling or tunnelling process could potentially impact on Blue Swallows breeding above, through disturbance by noise or vibration. Disturbance could result in loss of breeding productivity for the relevant population of swallows, or total breeding failure for the relevant season, or even long term abandonment of nest sites by breeding pairs. For such a threatened species any loss of breeding productivity would be highly significant. We recommend that construction of the relevant section of tunnel may only take place in the swallows’ non-breeding season (April to August – exact dates to be confirmed by specialist in relevant seasons). We will require more technical information on the extent to which tunnel drilling will create noise and vibration, and the nature of the adits.”</i></p> <p>And:</p> <p><i>“There is no doubt that it would be better for avifauna and particularly Blue Swallows if this area was not used for the balancing dam. The scoping phase avifaunal report recommended that an</i></p>						

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p><i>alternate site be sought, however the proponent has informed us that is not possible. This report recommends that the Mbangweni Dam site be selected. Construction may however not take place during the Blue Swallows breeding season (approximately September to March – (exact dates to be confirmed by an avifaunal specialist in the relevant season). We will require more information on the exact nature of noise created by construction of the dam wall.”</i></p> <p>Based on these three sections of this report, it is obvious that there is significant threat facing the Blue Swallow Population from a number of aspects of this project. I do not feel that the project can continue without paying special attention to finding a way around this blue swallow breeding area. Even building and drilling out of breeding season could affect the swallows, since their nests might collapse from the vibrations or be damaged in other ways through construction activities.</p> <p>With only 35 breeding pairs remaining IN THE WHOLE WORLD, one cannot allow this level of impact on this population, and I do not believe that any mitigation efforts would be sufficient to reduce the risk. The pipeline should not be allowed to go under the habitat of these critically endangered birds, and neither should the balancing dam be constructed in the Baynesfield site.</p>						
385.	<p>2) Concerns about the manner in which potential threats are dealt with in the EIA process and the transparency and quality of the EIA process to date:</p> <p>The name of the ecological expert authority who conducted the terrestrial fauna and flora assessment is not clear – was this Ronald Phamphe from Nema Consulting? Surely a local expert not have been a better choice, considering these are threatened ecosystems and critically</p>	J. Cockburn	✓	✓	✓		R Phamphe has worked as an Ecologist of Ithala Game Reserve (EKZNW) for almost 4 years and as an independent Terrestrial Ecological consultant for over 10 years, with experience throughout the country. He has conducted various Terrestrial Ecological Impact Assessments in KZN.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	endangered species.						
386.	<p>The comments in the avifaunal report about relocation of the balancing dam in the Baynesfield area indicates a lack of serious attention being paid to recommendations by the avifaunal experts "The scoping phase avifaunal report recommended that an alternate site be sought, however the proponent has informed us that is not possible". If the proponents do not take this kind of recommendation seriously in the EIA process, that also calls into question the transparency and quality of the process, since it is after all and ENVIRONMENTAL impact assessment, and the impacts of the project on the environment and on CRITICALLY ENDANGERED species need to be addressed in al seriousness.</p> <p>I call on Nemai Consulting to re-consider the serious threat which this project poses to Blue Swallows, and to take heed of the suggestions from the avifaunal expert about the threats to the Blue Swallows.</p> <p>There are only 35 breeding pairs of these birds left, and this EIA process needs to be cognisant of that and make plans to move the pipeline and balancing dams away from these sensitive habitats.</p> <p>I would hereby like to please register as an Interested and Affected Party for the UMKHOMAZI WATER PROJECT PHASE 1 – RAW WATER COMPONENT. My name: Jessica Cockburn Address: 4 Cross Street, Grahamstown, 6139 Phone number: 072 1022875 E-mail address: jessicacockburn@gmail.com</p> <p>I look forward to further correspondence from you on this matter. In the interests of future generations, and all of nature, let us do all we can to save the</p>	J. Cockburn	✓	✓	✓		<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>It should be noted that the environmental impact for all balancing dams is common to all sites in this case. In fact the Baynesfield site's footprint will be substantial bigger than that of the other 2 sites; however the technical issues were the main reason for discarding that site. The fact that blue swallows breed actively in that catchment and the socio-economic impact to the Baynesfield Estate if the Baynesfield Dam had to be reconstructed/enlarged could be seen as additional reasons why this option should be discarded.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Blue Swallows.						
Source: Correspondence (Email) – 15 August 2016							
387.	<p>I hereby note my concern about the above mentioned project.</p> <p>My objection to the project - as a community member is with regard to the endangered Blue Swallow. According to Little and McKechnie (2012) there are only 35 breeding pairs and less than 100 individuals left in South Africa. All of these are found in KZN mistbelt region. A small population which used to breed at Kaapsehoop has now gone extinct. In addition to the 35 breeding pairs in South Africa, there are a few in Tanzania, however these are not protected and are severely threatened by agriculture.</p> <p>Kindly advise what protocols you will be implementing to ensure that the construction related to the aforementioned project will in no way jeopardise the blue swallow or its habitat as they are particularly sensitive to any changes in their surrounding environment.</p>	Gemma-Kate Bishop	✓	✓	✓	✓	Refer to response for no. 364 regarding the management strategy for Blue Swallows.
Source: Correspondence (completed Comment Sheet) – 15 August 2016							
388.	<p>We have unfortunately not been able to go through the document in sufficient detail, but would like to be kept informed as to the progress with the EIA, and will provide guidance from a conservation perspective if required. We have provided some key concerns below.</p> <p>The Endangered Wildlife Trust would like to reiterate a major concern regarding this project – particularly in terms of the location of the proposed service shafts very close to nesting sites of the Blue Swallow (<i>Hirundo atrocaerulea</i>), which is <i>Critically Endangered</i> in South Africa (http://www.iucnredlist.org/details/22712318/0). We</p>	C. Hughes (Endangered Wildlife Trust)	✓	✓	✓	✓	Refer to response for no. 364 regarding the management strategy for Blue Swallows.

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p>also raise the concern that there will be associated disturbance to these sites during the construction phase of the project. The Blue Swallow is an intra-Africa migratory species which is threatened by destruction and degradation of its grassland and wetland habitats, on both its breeding and non-breeding grounds. The estimated decline in the metapopulation size in South Africa and Swaziland is from 106 pairs in 2005 to 57 pairs in 2012, a decline of 54% over the past seven years (Evans et al., 2015).</p> <p>The concerns raised by Wild Skies in the avifaunal report (2015), and their recommendations that conservation groups should be consulted before any further steps are taken with the project are supported by the EWT. At this stage it is evident that the potential for irreversible negative impacts on Critically Endangered bird species is not adequately understood, and, as identified in the EIA, the plans for mitigation are at this stage not adequate.</p> <p><i>Reference:</i> <i>Steven W Evans, Ara Monadjem, Lizanne Roxburgh, Andrew E McKechnie, Elizabeth M Baker, Robert B Kizungu, Ian T Little, Fadzai Matsvimbo, Ronald K Mulwa, Daniel Mwizabi, Dianah Nalwanga, Kariuki Ntang'ang'a & Leigh Combrink (2015) Current conservation status of the Blue Swallow <i>Hirundo atrocaerulea</i> Sundevall 1850 in Africa, Ostrich, 86:3, 195-211, DOI: 10.2989/00306525.2015.1047808</i></p>						
Source: Meeting on Trewirgie Farm – 18 August 2016							
389.	<p>C Seele summarised their primary concerns with regards to the proposed uMWP-1 as follows:</p> <ul style="list-style-type: none"> The draft EIA Report does not adequately address both short-term and long-term impacts of the project on fauna and flora on Trewirgie Farm. He drew specific attention to the risks 	C Seele	✓	✓	✓		<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response for no. 592 regarding the tunnel servitude.</i></p> <p><i>Refer to response provided for no. 521 regarding the interaction of</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>posed to Blue Swallows;</p> <ul style="list-style-type: none"> Impacts of the tunnel's servitude on Trewirgie Farm; and Impacts to groundwater on Trewirgie Farm. 						<i>the tunnel with groundwater.</i>
390.	<p>B Seele read her comments with regards to the impacts of the proposed uMWP-1 on Blue Swallows and other fauna and flora, with specific reference to Trewirgie Farm. The comments, together with a letter from Ezemvelo KZN Wildlife pertaining to the qualification of Trewirgie Farm for the Nature Reserve category, were provided to Nema Consulting during the meeting.</p> <p>B Seele indicated that two Blue Swallow nesting sites had been confirmed on Trewirgie Farm (shown on map), in close proximity to the tunnel route.</p>	B Seele	✓	✓	✓		<p>D Henning indicated that these comments would be included and responded to in the updated Comments and Responses Report, which would be appended to the final EIA Report. Only certain of these comments were discussed further during the meeting, which included the following:</p> <ul style="list-style-type: none"> D Henning explained that R Phamphe is a Professional Natural Scientist registered with the South African Council for Natural Scientific Professions, and therefore it is not necessary to have his reports reviewed by an external ecologist. D Henning noted that he reviewed the Terrestrial Ecological Impact Assessment compiled by R Phamphe as part of the internal quality management system within Nema Consulting. D Henning and K Bester explained why Option B of the tunnel alignment had been discarded, which related to the elimination of the Baynesfield Dam as a possible balancing dam. B Seele asked if the tunnel route could follow the alignment of Option B and then turn south-eastwards to reach the current termination point. Technical feedback to be provided. D Henning indicated that the mitigation measures proposed as part of the EIA to manage impacts to Blue Swallows included the following (amongst others): <ul style="list-style-type: none"> Establish Blue Swallows Working Group, which will include the relevant environmental authorities, conservation groups, landowners and members of the project team; Conduct a thorough avifaunal walk through of all project components prior to construction, to identify any areas of particularly high sensitivity and requiring management during construction; Implement a noise and vibration monitoring programme, where baseline values will be determined prior to construction. Establish noise and vibration limits for Blue Swallows; Attempt to avoid construction in sensitive areas during the breeding season of Blue Swallows, based on findings

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>of baseline avifaunal as well as noise and vibration monitoring. K Bester commented that it would very difficult to stop drilling or if it is stopped it will be extremely costly (therefore not feasible).</p> <p>K Bester enquired about the current approach to cutting trees in the forestry plantation on the farm. C Seele stated that the felling of trees does not affect the Blue Swallows.</p> <p><i>Refer to responses to issues raised in letter in no. 393 – 418.</i></p>
391.	C Seele summarised B Seele's comments by saying that severity of the Blue Swallow impact was not adequately reflected in the draft EIA report.	C Seele	✓	✓	✓		D Henning responded by saying he would be happy to emphasise the potential Blue Swallow impact in greater detail.
392.	<p>M Seele asked whether an additional EIA would be needed for this drilling.</p> <p>B Seele indicated that no boreholes should be drilled in sensitive areas in terms of Blue Swallows.</p>						<p>K Bester discussed the tunnelling method and the lining of the tunnel, based on geological conditions. He further noted that additional geotechnical investigations needed to be undertaken as part of the project's design phase, which would include drilling of additional boreholes.</p> <p>D Henning responded that the EMPr in the absence of an EIA becomes the document that speaks to managing sensitive areas. D Henning stated that he would be happy to write it in and draw more attention to it in the EIR.</p>
Source: Correspondence (Letter) – 18 August 2016							
393.	<p><u>Impacts of the proposed Umkhomazi Water project on Blue Swallows, and other fauna and flora (specifically on Trewirgie Farm)</u></p> <p>Please note that all page numbers refer to the draft raw water EIA report unless stated otherwise.</p> <p>I will start with the ecological impacts of the proposed project on fauna and flora in general, with a specific focus on Trewirgie Farm, and referring to the specialist terrestrial fauna and flora report and the draft raw water EIA report. At this point it must be mentioned that Trewirgie Farm, because of its stands of special plant communities and habitats of threatened species, including Oripi and nesting sites of the Critically Endangered Blue Swallow),</p>	B. Seele		✓			<p>As explained in the Document Roadmap in Section 2, the EIA Report is broken up into various sections that are linked to the EIA Regulations (2010). There are specific sections dedicated to describing the terrestrial ecology.</p> <p>Page no. 18 falls under Section 4, which merely provides a generic description of the project location with accompanying regional map and locality maps.</p> <p>Page no. 208 falls under Section 10.2, which provides a generic explanation of the land use and cover for each of the major project components, based on Figure 99.</p> <p>The various environmental features and attributes are explained in the subsequent sections under the Environmental Profile (Section 10.3 – 10.21). Section 10.9 covers Terrestrial Ecology.</p>

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	<p>was declared a natural heritage site in 1995 (the documentation of which has been sent to Donavan Henning) and is in the process of becoming a nature reserve (see letter from the General Manager, People and Conservation, Ezemvelo KZN Wildlife).</p> <p>We request that this important information be included in the descriptions of the location of the proposed tunnel: pg. 18, and very importantly on pg. 208 of the raw water EIA draft report, where it is stated that '<i>the remaining part of the tunnel (the eastern section) (ca. 13km) traverses privately owned land that is predominantly used for commercial farming and forestry with patched (note spelling error) of indigenous forests and improved grassland.</i>' Please could you correct this to: 3.3km of these 13km pass through a natural heritage site, and through patches of endangered Midlands Mistbelt grasslands (one of the most threatened vegetation types in KZN - Mucina and Rutherford, 2006).</p>						Nonetheless, reference included in Section 10.2.4 to provide further context to the sensitivity of the receiving environment in terms of the natural heritage site and patches of endangered Midlands Mistbelt grasslands, as requested.
394.	<p>In addition, can we request that this endangered status is highlighted in bold on pg. 268 of the same report as with the other vegetation types. We further request that the conservation status of the farm be acknowledged on pg. 272 where it is only mentioned that: '<i>(...) impacts to plant life along the tunnel route options include rural subsistence agriculture (western section), forest plantations and commercial farming (eastern section).</i>' Please include: patches of endangered Mistbelt grasslands conserved by landowners. The same holds true for the description of the raw water conveyance infrastructure on pg. 275 and pg. 361 of the same report.</p>	B. Seele		✓			<p>EIA Report updated. Discussion on sensitivity of Trewirgie Farm in terms of Blue Swallows included under Section 10.9.2.4 of the final EIA Report.</p> <p>Note that the descriptions on page no. 275 and page no. 361 are based on the KZN Provincial Biodiversity Plan, shown in Figure 142.</p> <p>Potential loss of grassland will only occur along the tunnel where there are surface activities (shafts, adits, access roads, geotechnical test pits).</p>
395.	<p>All terrestrial fauna and flora related impacts of the proposed project should, theoretically, be addressed in the specialist terrestrial fauna and flora report, and summarised in the draft EIA report. This report was written by Ronald Phamphe, and</p>	B. Seele		✓			<p>R Phamphe is a Professional Natural Scientist registered with the South African Council for Natural Scientific Professions, and therefore it is not necessary to have his reports reviewed by an external ecologist. D Henning noted that he reviewed the Terrestrial Ecological Impact Assessment compiled by R</p>

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	according to the report, reviewed by Donavan Henning, however when this was queried, I was told it was reviewed internally. Please could this information be updated?						Phamphe as part of the internal quality management system.
396.	<p>We are very concerned about the quality and validity of both the specialist report and the summary thereof in the draft raw water EIA report for the following reasons:</p> <p>1. Pg. 52 of the draft raw water EIA report states: the terrestrial ecological impact assessment notes that a limitation of the report is that '<i>species of conservation concern are hard to find and identify.</i>' This is incorrect - species of conservation concern are often well described. For a project of this magnitude and calibre, a terrestrial ecologist (ideally with knowledge and experience of the local environment) that can at least identify species of conservation concern (impacted by the project) should have been tasked with performing the report. This indicates that the results of the report are severely limited.</p>	B. Seele		✓			Even though most species of conservation concern are hard to find, all necessary steps were undertaken to identify all species on site through site surveys, historical data, SANBI data and EKZNNW data and also engaging with local communities to source/confirm the occurrences of certain species in the project area.
397.	<p>2. Pg. 273 of the draft raw water EIA report: Table 62, copied directly from the specialist terrestrial fauna & flora report; here it states that the 38 threatened plants species, recorded in the quadrats where the proposed project is located, are not endemic to South Africa, including the Hilton Daisy. This is incorrect. The Hilton daisy is an endangered Mistbelt grassland endemic and presents one of the most important ecological impacts of the proposed project. The incorrectness of this vital information reduces the validity of the entire report.</p>	B. Seele		✓			The Terrestrial Ecological Report has been revised in this regard.
398.	<p>3. Pg. 284: We request that the tree dassie (<i>Dendrohyrax arboreus</i>), included in the IUCN red list because the forest habitat it relies on is under severe threat from removal and degradation, be added to Table 63. Tree hyrax have been recorded on Trewirgie Farm and can be heard clearly almost every night. Another limitation of the terrestrial fauna and flora report is that no night-time data</p>	B. Seele		✓			Tree hyrax and Serval are included in the final report (Table 8).

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p>gathering was performed, thereby excluding important nocturnal mammals from the report. In addition, table 64, pg. 286, we request that it is indicated that Serval have been recorded on Trewirgie Farm.</p> <p>The concerns mentioned above have been raised directly to Nemaï consulting, but to date, I have not received any reply to these, nor information or explanations thereof.</p>						
399.	<p>Other concerns regarding the draft raw water EIA report and ecological implications of the proposed project:</p> <p>1. Pg. 47-48: Although long term economic benefits are discussed, true environmental costs, which include long term ecological costs, are not addressed by the EIA draft reports and are a DEA requirement. This shortcoming is noted in the avifauna report (pg. 52) but nowhere else.</p>	B. Seele		✓			The Economic Impact Assessment (Appendix H10) reviews the locality, the drivers of water resource demand in the catchment areas and provides an overview of the anticipated impacts of the total development. Emphasis is placed on understanding both the costs of the establishment of the scheme, as well as the long term benefits within an economic cost-benefit framework that reviews the opportunity costs associated with the proposed scheme. Refer to further related discussions in Section 12.22 of the draft EIA Report.
400.	<p>2. Pg. 75: Table 11, scheme comparison: Although the environmental impacts of the Ndooyane scheme are mentioned, no mention is made of the severe environmental impacts of the Smithfield-Baynesfield scheme.</p> <p>3. Pg. 78: Although it is stated the 'very significant ecological and social mitigation measures could be implemented in order to reduce the impacts of the Smithfield Scheme (...)', it is not stated that there are certain important ecological impacts that cannot be mitigated if the scheme is implemented.</p>	B. Seele		✓			<p>With regards to the reference to page no. 73, note that this section was sourced from the uMkhomazi-Mgeni Transfer Scheme Pre-Feasibility Study from 1999. The Pre-feasibility Study follows on from the Mgeni River System Analysis Study carried out between 1991 and 1994, in which the uMkhomazi River was identified as a potentially viable source of water for augmentation of the Mgeni System, and the Mooi-Mgeni Transfer Feasibility Study carried out in 1995, in which the first phase scheme to augment the Mgeni System from the Mooi River was investigated in detail and possible second phase schemes were identified. This Study included inter alia a pre-feasibility investigation of augmentation schemes on the uMkhomazi River preceded by scheme identification and reconnaissance investigations. Environmental factors did play a role in the appraisal of the eight possible schemes during the Pre-Feasibility Study, as reflected on pages no. 73 – 77, where the following schemes were eliminated by taking into consideration environmental impacts (refer to Tables 10 – 13):</p> <ul style="list-style-type: none"> • Clayborne Scheme (Scheme 2); • Ndooyane Scheme (Scheme 4); • Winters Valley-Lovu (Scheme 5);

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							<ul style="list-style-type: none"> Inzinga-Mgeni (Scheme 6); and Impendle Pipeline (Scheme 7). <p>The uMWP-1 website contains further information on previous studies, including:</p> <ul style="list-style-type: none"> Water Reconciliation Strategy Study for the KwaZulu-Natal Coastal Metropolitan Areas, 2011; Mkomazi/Mooi-Mgeni Transfer Scheme Pre-feasibility Study, 1999; Development of a Reconciliation Strategy for All Towns in the Eastern Region, 2010; Umgeni Water Infrastructure Master Plan, 2010/11; and Classification Study.
401.	4. Pg. 101: River diversion for Smithfield dam construction. This is to take at least 3 years. Has an EIA been done for the effects of diverting the river?	B. Seele		✓			<p>As explained in the EIA Report and reports compiled as part of the technical feasibility study (available on the project website), the purpose of river diversion is to enable construction of the main dam embankment, especially in the river section, while accommodating the river flows and possible floods at an acceptable risk of delays and damages.</p> <p>The Contractor will prepare detailed method statements on how the river diversions will be undertaken to accommodate the construction of the above-mentioned project infrastructure. Best practices to manage the flow of the rivers to be affected by the diversions are included in the EMPr.</p> <p>Refer to Section 12.6.4 for as assessment of impacts to the hydrological regime, which includes the river diversions associated with Smithfield Dam and the balancing dam.</p>
402.	5. Pg. 140: Seven aspects were taken into consideration in defining the raw water routes; these however do not include any ecological impacts. We request that these are included and taken into account. In addition to this, on pg. 571, although all other component options are mentioned, no mention is made of the alternative options with regards to the tunnel route, and what the preferred options and recommendations are of the specialists in this regard. There is a severe lack of transparency around the choice of tunnel route.	B. Seele		✓			<p>On page no. 140 it is stated that the following aspects were considered in defining the raw water pipeline routes:</p> <ul style="list-style-type: none"> Topography and associated elevation; Impacts to the social, biophysical, economic and built environment; Existing servitudes; Existing structures and infrastructure; Existing roads, as well as boundaries between landowners along the routes; Site constraints, potential watercourse crossings, road and railway crossings; and

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	Is there a reason for this?						<ul style="list-style-type: none"> Geotechnical overview. <p>The second bullet is intended to cover environmental factors.</p> <p>One of the options that were initially considered for the balancing dam as part of the Technical Feasibility Study (discussed in the Scoping Report and draft EIA Report) included enlarging the existing Baynesfield Dam to provide the necessary storage capacity required. <i>Refer to response to no. 349 for reasons why the Baynesfield Balancing Dam option (and the associated Option B of the tunnel) was discarded.</i></p>
403.	6. Pg. 432 (starting) Table 87: Please could you update the following impacts for the water conveyance infrastructure: Loss of stock watering points – due to possible drop in ground water table as mentioned on pg. 451 of the raw water draft EIA report. Please also add permanent loss of timberland – due to servitude.	B. Seele		✓			<p>Table 87 updated accordingly in terms of loss of stock watering points.</p> <p>It is not anticipated that agricultural and forestry operations will be adversely affected by the tunnel servitude. <i>Refer to response for no. 592 regarding the restrictions that apply to the tunnel servitude.</i></p>
404.	7. Pg. 581: Is the public able to comment on the final EIA report?	B. Seele		✓			<p>Yes. The EIA process is being conducted in terms of the EIA Regulations on 2010, and the final EIA Report will also be lodged for public review.</p>
405.	<p>Blue Swallows</p> <p>The Blue Swallow, a charismatic, indicator species is listed among the top five Critically Endangered bird species in South Africa (Wakelin & Hill, 2007).</p> <p>There are less than 35 breeding pairs, and less than 100 individuals left in South Africa (Little & McKechnie, 2012). Fewer than 10 breeding pairs can lead to probable extinction. The proposed Umkhomazi Water project will impact 14-15 Blue Swallow active breeding sites and numerous potential breeding sites.</p> <p>Trewirgie farm contains two actively used Blue Swallow nests (as indicated on the map) and extremely well conserved patches of Midlands mistbelt grasslands that the birds rely on. The proposed tunnel will pass almost directly underneath both nests. Blue swallows have been</p>	B. Seele		✓			<p>The sensitivity of the project area in terms of avifauna, and in particular Blue Swallows, is acknowledged in the initial Scoping Report and subsequent EIA Report. This is based on the findings of the Avifauna Study (which included an appraisal of various data sources and fieldwork), engagement with authorities (including Ezemvelo KZN Wildlife) and input received from Interested and Affected Parties (e.g. BirdLife South Africa).</p> <p>Discussion on sensitivity of Trewirgie Farm in terms of Blue Swallows included under Section 10.9.2.4 of the final EIA Report.</p> <p>The decline of the critically endangered Blue Swallows due to cumulative land use impacts (including commercial agriculture and forestation) should be investigated further.</p> <p>The following statement has been included in Sections 12.10 and 15.1 of the final EIA Report:</p> <ul style="list-style-type: none"> Overall it is estimated that 40% of the remaining Blue Swallow population occurs in the project area, and may be threatened by the project in the absence of adequate mitigation.

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	<p>monitored on Trewirgie Farm since the early 1980ies and the Seele family is deeply committed to ensuring that the conservation of the Blue Swallows and the natural environment of Trewirgie continues into the future and is not affected negatively in any way.</p> <p>A bit of background: Blue swallows are migratory birds that breed in abandoned aardvark/similar holes (up to 5m deep) in the KZN mistbelt grasslands. They often return to the same nesting sites, but are highly sensitive to any form of disturbance or land transformation, and have been recorded to abandon nests, chicks and all attempts at breeding after being disturbed. Because of this it has been recommended that 'the primary grasslands within a 4km radius of the nests must be protected and maintained. These sites should be protected by law (...)' (Wakelin & Hill, 2007).</p>						<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>
406.	<p>In summary, impacts of the Umkhomazi water project (noted in the specialist study, yet briefly mentioned or entirely excluded from the draft raw water EIA report) include:</p> <p>1) Destruction of primary grassland within a 4km radius of nests in the iMpendle nature reserve due to the construction and rerouting of the R617 through the nature reserve; the road will run between 2 and 3.7 km from six Blue Swallow nests.</p> <p>2) Construction of the balancing dam in Baynesfield and associated drilling, blasting, construction and general increase in noise, traffic etc. will affect Blue swallow breeding sites and foraging areas which are located 2km from the proposed dam wall.</p> <p>3) The construction of the conveyance tunnel (which runs very close to at least two active nests on Trewirgie Farm) and associated vibrations will disturb the sensitive birds and, even if done out of</p>	B. Seele		✓			<p>Section 12.10.1 of the draft EIA Report included the conclusions and impact statement sourced from Section 7 of the Avifauna Study report. Based on comments received, a more detailed explanation on the potential impacts to birds was included, as contained in Section 4.1 of the Avifauna Study report.</p>

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	breeding season, could destroy the actual nests and the aardvark holes in which the Blue swallows build their nests. There are very few aardvark holes (due to fewer aardvark) and finding other suitable nesting sites will be very difficult.						
407.	I'd like to focus on this last point and refer directly to the draft raw water EIA report where the summary of the specialist avifauna report, has left out many important data and findings from the specialist avifauna report.	B. Seele		✓			<i>Refer to response provided for no. 406.</i>
408.	1. The first mention of Blue Swallows is on pg. 279 of the raw water draft EIA report. This lessens the importance of the negative impact the proposed project can have on the birds.	B. Seele		✓			<p>A document roadmap is provided in Section 2 of the draft EIA Report to assist the reader and which shows how the EIA Report is aligned with the content requirements stipulated in Regulation 31 of GN No. R. 543 (18 June 2010).</p> <p>The information obtained from the respective specialist studies was incorporated into the draft EIA report in the following manner:</p> <ul style="list-style-type: none"> • The information was used to complete the description of the receiving environment (Section 10) in a more detailed and site-specific manner; • A summary of each specialist study is provided, focusing on the approach to the study, key findings and conclusions drawn (section 11); • The specialists' impacts assessment, and the identified mitigation measures, were included in the overall project impact assessment (Section 12); • The evaluations performed by the specialists on the alternatives of the project components were included in the comparative analysis to identify the most favourable option (Section 13); • Specialist input was obtained to address comments made by Interested and Affected Parties (I&APs) that related to specific environmental features pertaining to each specialist discipline; and • Salient recommendations made by the specialists were taken forward to the final EIA Conclusions and Recommendations (Section 15).
409.	2. Nowhere in the entire report is it mentioned that there less than 35 known breeding pairs and less than 100 individuals (Blue Swallows) left in South	B. Seele		✓			The sensitivity of the project area in terms of avifauna, and in particular Blue Swallows, is acknowledged in the initial Scoping Report and subsequent EIA Report. This is based on the findings

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	Africa (Little & McKechnie, 2012), and how many nests will be directly and indirectly impacted by the proposed project. Failing to mention this belies the severity of the impact of the proposed project on the critically endangered Blue Swallow. That 14-15 Blue Swallow nesting sites/pairs will be directly affected, puts the impact of the proposed project into context, and must be included in the report.						<p>of the Avifauna Study (which included an appraisal of various data sources and fieldwork), engagement with authorities (including Ezemvelo KZN Wildlife) and input received from Interested and Affected Parties (e.g. BirdLife South Africa).</p> <p>The following statement is included in Sections 12.10.1 and 15.1 of the final EIA Report:</p> <ul style="list-style-type: none"> <i>This project is situated in an area of generally high avifaunal sensitivity with Blue Swallow as the primary bird species of concern since there are so few breeding pairs left in South Africa (only 35 known breeding pairs according to Little & McKechnie, 2012), and it is a species known to be susceptible to disturbance. This project is also located in a core area for the species. Overall it is estimated that 40% of the remaining Blue Swallow population occurs in the project area, and may be threatened by the project in the absence of adequate mitigation.</i>
410.	3. 'The greatest threat to this species is the destruction and fragmentation of its grassland habitat and human disturbance (Allan et al., 1997, Little & McKechnie, 2012, Marchant, 2012)' and 'this is certainly the species of most concern for this project', both found on pg. 20 of the specialist avifauna report, are, yet again, not mentioned in the draft EIA raw water report.	B. Seele		✓			Refer to response provided for no. 409.
411.	4. In the draft raw water EIA report, no mention is made of the 4km buffer zone around nests, in which no development or disturbance should occur and that these sites should be protected by law (Wakelin & Hill, 2007) pg. 21 of the specialist avifauna report. This is of great importance to the continued use of nests by the Blue Swallows and must be included in any summary of the report.	B. Seele		✓			Refer to response provided for no. 406.
412.	5. Pg. 2 of the specialist avifauna report states that 'The tunnel (which passes under Trewirgie) does pass under a core Blue Swallow <i>Hirundo atrocaerulea</i> breeding area, identified as an Important Bird Area. The drilling or tunnelling process could potentially impact on Blue Swallows breeding above, through disturbance by noise or vibration. Disturbance could result in loss of	B. Seele		✓			Refer to response provided for no. 406.

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	breeding productivity for the relevant population of swallows, or total breeding failure for the relevant season, or even long term abandonment of nest sites by breeding pairs. For such a threatened species any loss of breeding productivity would be highly significant.' We request that this be emphasized in the draft EIA raw water report.						
413.	6. No mention is made on the impact of vibrations on the nest structures and nesting-hole stability. Blue Swallows build small cup-shaped nests attached to the side walls of disused aardvark holes, there are not many of these remaining, as aardvark numbers have dropped severely. Destroying nests and nesting holes can lead to the abandonment of an entire (and following) breeding effort, success and season. Jon Smallie has confirmed that this impact will be included in the specialist report, and we request that this be reflected in the EIA report.	B. Seele		✓			<i>Refer to response provided for no. 406.</i>
414.	7. We request that the following be added to pg. 495 of the raw water draft EIA report: Drilling, even during non-breeding season of Blue Swallows could have an impact on nests and nesting-hole structures.	B. Seele		✓			<i>Refer to response provided for no. 406.</i>
415.	8. On pg. 497 of the raw water draft EIA report it states that baseline noise and vibration levels need to be established. We request that this is done prior to the finalisation of the EIA report. Once the birds have been disturbed it is very possible that they will not return at all. Fewer than 10 pairs could lead to extinction.	B. Seele		✓			<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>
416.	9. The recommendations of the avifauna report in terms of options of scheme components are not reflected in the final choice of the raw water pipeline, location of balancing dam, and road associated with the balancing dam. These choices all go against the recommendations and preferred options of the avifauna report. Strangely, again, no mention is made of alternative tunnel location options. Please note than on pg. 2 of the specialist study, 'there is no doubt that it would be better for avifauna and particularly Blue Swallows if this area	B. Seele		✓			<p>Tables 100 – 103 in the draft EIA Report summarise the findings of the various specialists (including Avifauna) in terms of their respective preferences for the project's feasible alternatives. Note</p> <p>The reasons supplied by the Avifauna specialist for selecting Mbangweni Balancing Dam as the preferred option included:</p> <ul style="list-style-type: none"> • Although larger in surface area compared to Langa, Mbangweni is in a generally more transformed area with less natural vegetation: <ul style="list-style-type: none"> ○ A far higher proportion of inundated area is already transformed for crops and forestry. Nett result is

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	(Langa dam), was not used for the balancing dam. The scoping phase avifaunal report recommended that an alternative site be sought, however the proponent has informant us that is not possible (not reason given). This report recommends that the Mbangweni dam site be selected.'						<p>Mbangweni will inundate approx. 62.5 ha of natural grassland and wetland, whilst Langa will inundate 78.3 ha.</p> <ul style="list-style-type: none"> ○ A higher proportion of the perimeter of the dam edge is transformed land use – therefore lower potential impacts on this receiving environment. Langa dam total perimeter is 7.9 km, 5.2 km of which is natural vegetation. Mbangweni dam has total perimeter of approx. 8.7 km with 4.5 km natural vegetation. • Both dam walls – where most construction will take place are more or less <u>equidistant to Blue Swallow breeding area (emphasis added)</u>. • Closer to tunnel outlet therefore less additional infrastructure required. • Closer to main roads therefore less new access road required and less disturbance of areas <i>en route</i> to new dam. <p>The BPEO for project components with alternatives were selected based on a balanced appraisal of the recommendations of the specialists, technical considerations and the comparison of the impacts. It is thus possible to identify a BPEO that is not necessarily preferred in terms of a particular specialist study.</p> <p><i>Refer to response to no. 346 and 349 regarding the tunnel route options.</i></p>
417.	10. In the EIA raw water draft report, no mention is made of the fact that the birds are highly sensitive to disturbance and have been recorded to abandon nests and breeding altogether after being disturbed. As mentioned in the specialist report, and left out of the draft EIA report: 'This species is highly susceptible to habitat destruction, and disturbance – particularly while breeding. Given its dire conservation status, there should be no tolerance for additional impacts on this species, particularly in one of its core ranges' (pg. 21 of the specialist avifauna report). We hereby request that this important statement is included in the raw water EIA report.	B. Seele		✓			<i>Refer to response provided for no. 406.</i>
418.	In conclusion, as Blue swallow custodians, who have been monitoring and conserving Blue	B. Seele		✓			<i>Refer to response provided for no. 406.</i>

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			Smithfield Dam	Tunnel	Balancing Dam		
	Swallows and their associated habitat since the early 1980s, we request that these important findings of the specialist avifauna report be included in the EIA raw water report, and that it is noted that we oppose the construction of Langa dam, the rerouting of the R617 through iMpendle nature reserve and the construction of the tunnel under Trewirgie Farm.						
Source: Correspondence (Letter) – 23 August 2016							
419.	The Department of Agriculture, Forestry and Fisheries (DAFF) appreciated the opportunity given to review and comment on the Environmental Impact Assessment Report for the above mentioned development. DAFF under the section: Forestry Regulations and Support is the authority mandated to implement the National Forest Act No. 84 of 1998 by regulating the use of natural forests and protected tree species in terms of the said Act.	K. Moodley (DAFF)	✓				Based on copy of draft EIA Report submitted to DAFF.
420.	With regards to the document received on 05 th July 2016 and the site inspection conducted on the 18 th August 2016, the proposed area (western part of the project) which constitutes of the Smithfield dam and associated infrastructure consists of patches of natural forests, particularly riparian vegetation which occurs along the river channel. A patch of natural forest was also identified at 29°45'55.45"S 29°57'05.85"E. The construction of the Smithfield dam will thus result in a vast area of natural vegetation been inundated. The Department therefore recommends that the following conditions be strictly adhered to:						Based on site visit conducted with DAFF. According to the map of the biomes in the region, the co-ordinates provided by DAFF indicate a Grassland biome and not a Forest biome. However, a patch of indigenous forest does occur in this area.
421.	<ul style="list-style-type: none"> A vegetation specialist must quantify the number of trees, particularly those trees that constitute a natural forest as per section 7 of the NFA that will be affected by the proposed construction of the dam. 	K. Moodley (DAFF)	✓				A patch of indigenous forest of approximately 9.88 ha will be affected by the FSL of the proposed dam. However, this patch is also highly infested by alien plant species such as <i>Opuntia ficus-indica</i> , <i>Acacia mearnsii</i> and <i>Solanum mauritanum</i> .
422.	<ul style="list-style-type: none"> A compensation ratio of 1:3 should apply for every indigenous tree removed. 	K. Moodley (DAFF)	✓				Provision made in the EMPr for the following: A compensation ratio of 1:3 should apply for every conservation-worthy indigenous tree removed.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
423.	<ul style="list-style-type: none"> Roads should be carefully planned and existing roads should be used to prevent the unnecessary removal of indigenous trees. Training should be conducted on indigenous and protected tree species for the construction workforce by a suitably qualified person. A search, rescue and relocation programme needs to be implemented for indigenous tree saplings within the construction area and in the dam basin prior commencement of construction activities. Mitigation measures outlines in the Environmental Management Plan report (EMPr) should be strictly enforced by the Environmental Control Officer (ECO) in order to minimise the negative impacts. A licence application should be forwarded to DAFF office in Pietermaritzburg for review prior the disturbance of any indigenous trees that constitute a natural forest as per section 7 of the National Forests Act No. 84 of 1998. 	K. Moodley (DAFF)	✓				Provision made for these conditions in the EMPr.
424.	<ul style="list-style-type: none"> Kindly note, DAFF officials are permitted to monitor the site at any given time. Non-compliance with above conditions is a contravention of the National Forests Acts 84 of 1998 and will thus results in legal action. 	K. Moodley (DAFF)	✓				In terms of Occupational Health and Safety legal requirements, access will need to be arranged to the construction site.
425.	This letter does not exempt you from considering other environmental legislation. Should any further information be required, please do not hesitate to contact this office.	K. Moodley (DAFF)	✓				Condition noted.
Source: Correspondence (Letter) – 23 August 2016							
426.	The Department of Agriculture, Forestry and Fisheries (DAFF) appreciated the opportunity given to review and comment on the DEIAR for the above mentioned development. DAFF through the sub-directorate Forestry Regulations and Support is the authority mandated to implement the National Forest Act, (Act No. 84 of 1998) by regulating the use of natural forests and protected tree species in terms of the said Act.	K. Moodley (DAFF)				✓	Based on copy of draft EIA Report submitted to DAFF.

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			Smithfield Dam	Tunnel	Balancing Dam		
427.	With regards to the document received on 05 th of July 2016, majority of the indigenous vegetation within the proposed site have been transformed through anthropogenic activities such as agricultural activities and forestry plantations as evident from the site inspection conducted on 18/08/2016. However, there is some indigenous vegetation remaining furthermore, the pipeline crosses some watercourses and may impact on riparian vegetation during construction.	K. Moodley (DAFF)				✓	Comments aligned with findings in EIA Report.
428.	The Department has no objection towards the proposed development however recommend the following: <ul style="list-style-type: none"> The pipeline servitude should be completely rehabilitated post construction. The mitigation measures outlined in the Environmental Management Programme must be adhered to. Should there be a need to disturb indigenous trees in a natural forest and/or protected tree species in terms of NFA, a permit must be obtained from DAFF offices in Pietermaritzburg. 	K. Moodley (DAFF)				✓	Provision made for these conditions in the EMPr.
429.	This letter does not exempt you from considering other environmental legislation. Should any further information be required, please do not hesitate to contact this office.	K. Moodley (DAFF)				✓	Condition noted.
Source: Correspondence (Letter) – 4 September 2016							
430.	We refer to the draft Environmental Impact Assessment (EIA) Reports for the proposed uMkhomazi Water Project Phase 1 (uMWP-1), Raw Water and Potable Water components. It is an unfortunate situation that this development has potential to impact on two of the most important Blue Swallow sites in South Africa, namely the Impendle Nature Reserve and the Baynesfield portion of the KwaZulu-Natal Mistbelt Grassland Important Bird and Biodiversity Areas (IBA). We have divided our comments below to differentiate	N. Theron (Birdlife SA)	✓	✓	✓	✓	The sensitivity of the project area in terms of avifauna, and in particular Blue Swallows, is acknowledged in the initial Scoping Report and subsequent EIA Report. This is based on the findings of the Avifauna Study (which included an appraisal of various data sources and fieldwork), engagement with authorities (including Ezemvelo KZN Wildlife) and input received from Interested and Affected Parties (e.g. BirdLife South Africa).

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	between the potable and raw water components.						
431.	<p><u>Potable Water component</u> It is clear that these aspects of the project pose less of a risk to avifauna in the region. Nevertheless, the project has potential to impact on species such as Blue Swallow, Blue Crane and Grey Crowned Crane. BirdLife South Africa would like to state our position regarding the following:</p> <ul style="list-style-type: none"> We support the findings of the avifaunal component of the EIA that option 3 of the waste water treatments is the preferred option as it is furthest from the KZN Mistbelt Grassland IBA and Blue Swallow sites. This is also important in terms of impacts due to noise and construction activities which are an especially sensitive component of the projects raw water module. 	N. Theron (Birdlife SA)				✓	<p>Note that it is a water treatment works (WTW), and not “waste water”. This is important to highlight, due to the additional impacts associated with the latter.</p> <p>The BPEO for project components with alternatives were selected based on a balanced appraisal of the recommendations of the specialists, technical considerations and the comparison of the impacts. It is thus possible to identify a BPEO that is not necessarily preferred in terms of a particular specialist study.</p> <p>Although Option 3 of the WTW was preferred by the Avifauna Specialist, he noted that Option 1 (the BPEO) was also acceptable.</p>
432.	<ul style="list-style-type: none"> That avian walkthroughs be undertaken during all aspects of the project to ensure no sensitive sites are affected. 	N. Theron (Birdlife SA)				✓	Provision made in the Pre-construction EMPr.
433.	<p><u>Raw Water Component</u> The Raw water component is of special concern to BirdLife South Africa due to the potential impacts on Blue Swallow and other threatened and endemic species. Although the immediate loss of habitat is not the primary concern the disturbance, noise and vibrations caused during construction of the Smithsfield Dam, balancing dam and raw water conveyance tunnels are. These components have potential to affect two of the most important Blue Swallow populations in KZN comprising approximately 8 pairs which is 40% of the population in South Africa. In addition, it must be mentioned that BirdLife South Africa is implementing biodiversity stewardship with landowners in the Baynesfield area with the aim of declaring a Nature Reserve. We are also concerned with the lack of information pertaining to the noise levels and vibrations caused by these construction activities. These aspects require</p>	N. Theron (Birdlife SA)	✓	✓	✓		<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>

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			Smithfield Dam	Tunnel	Balancing Dam		
	<p>further discussion and clarity. Our specific concerns relate to the following:</p> <ul style="list-style-type: none"> • Building activities at the Smithsfield Dam and especially associated blasting and the use of heavy earth moving equipment has the potential to impact on nesting Blue Swallows in the Impendle IBA. It is our understanding that the dam wall will be approximately 10 km from breeding Blue Swallows. However, the impacts of these activities should be carefully monitored. • We require further clarity regarding the re-routing of the R617 road, the construction that will take place and the associated noise levels that may be expected. This road will fall within the Impendle Nature Reserve so extreme caution should be exercised to ensure that construction is undertaken in as sensitive a manner as possible. Where blasting and other forms of heavy machinery are to be employed these should be undertaken during periods when Blue Swallow are not breeding (April – September). • The noise and disturbance associated with the construction of the balancing dam, especially blasting and heavy earth moving machinery, may impact on Blue Swallow that nest within 3 km. In addition, there is potential that more pairs are present along the ridge above the dam and these would be within 2km. It is also likely that Blue Swallows will forage in the valley. Thus, construction of the balancing dam is of major concern and we appreciate and support the recommendations that specific aspects of construction such as blasting occur in the winter months while Blue Swallow are not breeding. This is likely the most sensitive aspect of the project and further discussion should be undertaken to ensure that as little impact as possible occurs at the site. • Noise and Vibrations from the underground 						

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	conveyance tunnel is also a concern and requires further clarity. As mentioned in the EIA report Blue Swallow nest underground and thus may be highly susceptible to tunnelling activities due to vibrations and noise.						
434.	<ul style="list-style-type: none"> The implications of the tunnel servitudes above ground especially in terms of the proposed Nature Reserve at Trewergie need further clarity. 	N. Theron (Birdlife SA)	✓	✓	✓		<i>Refer to response for no. 592 regarding the tunnel servitude.</i>
435.	<p>In the context of the above it is recommended that environmental managers be employed at site to ensure that any aspects that may affect sensitive species in the area are adhered to. It is also critical that Blue Swallow populations at these sites are monitored throughout. In addition, the topic of offsets should be approached with caution as the reality is that very little suitable habitat for Blue Swallow remains and offsets may not be a suitable option. However, we are open to these discussions.</p> <p>We look forward to a constructive meeting and discussions around these points so that the best possible solutions can be found. In essence, Birdlife South Africa understands the context in which this dam is needed and we are not opposed to this development. However, it is critical that this development is not undertaken in a way that compromises the future conservation of Blue Swallows, which are one of South Africa's most threatened species. A species we are obliged to conserve as part of our commitments to the Convention of Biological Diversity (CBD) and the Convention of Migratory Species (CMS), to which South Africa is a signatory.</p>	N. Theron & S. Gear (Birdlife SA)	✓	✓	✓		<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>
Source: Blue Swallows Working Group Meeting – 12 September 2016							
436.	A. Armstrong made reference to the obligations stated in the Constitution with regards to Environmental Rights, which he emphasised needed to be kept in mind during the discussions to follow.	A. Armstrong (Ezemvelo KZN Wildlife)	✓	✓	✓		<p>D Henning suggested that the specialist that compiled the Terrestrial Ecological Report schedule a meeting with the relevant local experts and that the gaps in this report be addressed.</p> <p><i>The specialist subsequently made contact with A. Armstrong and</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	He indicated that the requirements of a suitably qualified consultant included the use of the appropriate tools-of-trade, such as up-to-date Red Lists and Atlases, to identify the threatened fauna and flora species in the project area. He stated that the consultant is not fulfilling his professional duty if these are not used. He stated that there were various shortcomings in the Terrestrial Ecological Report, such as the failure to identify the Endangered Pennington's Protea Butterfly at the site. He also noted concern with regards to the timing of the survey and the absence of fieldwork to verify occurrence of identified endangered species, with concomitant mitigation measures. He indicated that local ecological experts should also have been consulted.						<i>updated the Terrestrial Ecological Report.</i>
437.	A Marchant indicated that certain protected trees that occur in the project area such as Black Stinkwood had also not been identified, and that Tree Hyrax had also been omitted from the list of mammals in the Terrestrial Ecological Report. He further noted that the report indicates that Oribi 'potentially occur' in the area, which should be revised to 'definitely occur'.	A. Marchant	✓	✓	✓		<i>The Terrestrial Ecological Report was updated, based on these comments.</i>
438.	B Coverdale emphasised that the deficiencies in the Terrestrial Ecological Report needed to be rectified and that the author needed to engage with the local ecological experts.	B. Coverdale (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>The Terrestrial Ecological Report was updated, based on these comments.</i>
439.	A Marchant raised a concern with regards to the inclusion of coordinates of protected plant species in the Terrestrial Ecological Report. The relevant attendees confirmed that this should be excluded.	A. Marchant	✓	✓	✓		<i>The Terrestrial Ecological Report was revised and the coordinates were removed.</i>
440.	I Felton suggested that the scope of the Blue Swallows Working Group be changed to include overall biodiversity associated with uMWP-1. This recommendation was agreed to by the parties present.	I. Felton (KZN EDTEA)	✓	✓	✓		<i>The term "uMWP-1 Biodiversity Monitoring Committee" is applied in the final EIA Report.</i>
441.	N Pillay stated that the impact of the tunnel on other sensitive species such as the Hilton Daisy also needed to be considered.	N Pillay (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>The limited direct impact of the tunnel on the surface needed to be taken into consideration.</i>

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							<p>The EMPr makes provision for the search, rescue and relocation of red data, protected and endangered species and medicinal plants. This is to be implemented taking into consideration the project programme to ensure that these sensitive environmental features are rescued prior to potential impact occurrence. DEA, KZN EDTEA, EKZNW and DAFF are to be consulted to ensure that requirements are satisfied. For fauna and flora species, the following factors need to be considered (amongst others):</p> <ul style="list-style-type: none"> • Detailed plan of action (including timeframes, methodology and costs); • Site investigations to identify and record sensitive species; • Consultation with authorities and stakeholders; • Marking of species to be relocated; • Seeking of permits; • Identification of suitable areas for relocation; • Aftercare; and • Monitoring (including targets and indicators to measure success). <p>Section 12.10.3 of the final EIA Report includes a mitigation strategy for endangered species.</p>
442.	B Seele stated that the Terrestrial Ecological Report incorrectly indicated that the Hilton Daisy was not endemic to South Africa. She suggested that this report be redone by another specialist.	B. Seele	✓	✓	✓		The Terrestrial Ecological Report was revised.
443.	A Marchant indicated that Blue Swallows no longer occur in Kaapsehoop (Mpumalanga) and that they are only to be found in KwaZulu-Natal Mistbelt Grasslands, which further emphasises the plight of this species.	A. Marchant	✓	✓	✓		Noted. Refer to response for no. 364 regarding the management strategy for Blue Swallows.
444.	N Theron noted that the impacts to Blue Swallows included the potential loss of feeding areas.	N. Theron (Birdlife SA)	✓	✓	✓		Avifauna Report to be updated accordingly.
445.	<p>M van Deventer indicated that he is more concerned about the risk posed by tunnelling.</p> <p>He requested clarity regarding whether the Blue Swallows are foraging in the area to be affected by the balancing dam.</p> <p>N Theron indicated that he is unsure whether this</p>	M. van Deventer (Baynesfield Estate)	✓	✓	✓		J Smallie noted that the inundation area of the balancing dam includes grassland.

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	area is used for foraging and he suggested that this area be explored further.						
446.	A Marchant raised a concern with regards to the risk posed to the forest patches on the slopes to the north of the R617 road deviation, within the Impendle Nature Reserve. He stated that provision needs to be made to protect these forests.	A. Marchant	✓				<p><i>Thanks again for your valued input during yesterday's meeting. I've requested our ecologist to get into contact with you with regards to your comments raised.</i></p> <p><i>I also wanted to share the attached map with you (included in email), which shows the deviation of the R617 and the encroachment into the Impendle Nature Reserve. Based on our earlier discussions with EKZNW, the boundary of the Reserve would be changed to exclude the areas where the road encroaches. The proximity to the patches of forests is also shown and we take note of the concern with regards to potential removal of the trees and other threats to these important ecosystems, and we will include mitigation measures in the EIA Report and EMPr in this regard.</i></p>
447.	A Marchant highlighted the risks of poaching associated with geotechnical investigations.	A. Marchant	✓	✓	✓		D Henning indicated that the EMPr includes mitigation measures in this regard.
448.	S Lekota asked if the Avifauna Study had considered both IUCN and CMS Lists in terms of the conservation status of Blue Swallows.	S. Lekota (DEA)	✓	✓	✓		J Smallie indicated that the latest Red Data Book had been used. He will confirm in terms of the CMS list.
449.	S. McKean enquired whether the power line associated with the project will traverse the Impendle Nature Reserve.	S. McKean (Ezemvelo KZN Wildlife)	✓				D Henning indicated that the power line route to the north-west of the dam had been excluded during the Scoping phase due to the risks to the nature reserve.
450.	A Marchant indicated that the noise and vibration associated with tunnelling needed to be predicted.	A. Marchant		✓			D Henning noted that a noise and vibration specialist opinion will be appended to the final EIA Report. He also indicated that the Blue Swallows Management & Mitigation Strategy makes provision for baseline monitoring.
451.	B Seele stated that according to Wakelin and Hill (2007), no grassland within 4km of Blue Swallow nests should be destroyed.	B. Seele	✓	✓	✓		<i>Where avoidance or minimisation of impacts to grassland (Blue Swallow habitat) is not practically feasible, the recommended biodiversity offsets includes the possibility of rehabilitating mistbelt grassland that has been affected by agriculture and forestry.</i>
452.	A Marchant asked about the possibility of acquiring land adjacent to Blue Swallow areas to rehabilitate as part of offsets.	A. Marchant	✓	✓	✓		D Henning noted that offsets were considered and further detail would be provided as part of the proposed Blue Swallows Management & Mitigation Strategy.
453.	B Coverdale noted that the Management & Mitigation Strategy should be expanded to include other biodiversity issues.	B. Coverdale (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>Mitigation strategy in final EIA Report includes endangered species as well as other sensitive ecological features.</i>
454.	A Marchant cautioned that the acceptance of the Management & Mitigation Strategy may be regarded as conceding defeat.	A. Marchant	✓	✓	✓		<i>The purpose of the proposed uMWP-1 Biodiversity Monitoring Committee includes (amongst others) providing on-going input into mitigation measures for uMWP-1 to manage impacts to sensitive</i>

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							<i>ecological features, as well as receiving feedback and commenting on the performance and progress of mitigation measures.</i>
455.	I Felton stated that in terms of the mitigation hierarchy, the last form of mitigation is offsets and sufficient information needs to be available to allow for decision-making in this regard.	I. Felton (KZN EDTEA)	✓	✓	✓		<p>D Henning indicated that the EIA recommends that the following forms of biodiversity offsets be investigated:</p> <ul style="list-style-type: none"> • Land under the Protected Area Expansion Programme that is representative of the Impendle Nature Reserve; • Rehabilitation of wetlands along the Mbangweni River and uMlaza River; and • Rehabilitation of KZN Mistbelt Grassland. <p>D Henning further explained that the areas of ecosystems to be lost are quantified in the EIA, together with an explanation of the status of these systems. He noted that it is recommended in the EIA Report that the Biodiversity Offset Plan be developed in the pre-construction phase, following further investigations.</p> <p><i>Refer to response provided for no. 471 regarding biodiversity offsets.</i></p> <p><i>Refer to discussion on mitigation hierarchy in the EIA Report. Where avoidance or minimisation were not practically feasible, offsets were considered.</i></p>
456.	S Lekota noted that the impacts caused by historical land use such as agriculture also needed to be understood.	S. Lekota (DEA)	✓	✓	✓		D Henning indicated that this will also be ascertained as part of baseline monitoring.
457.	B Seele noted the involvement and commitment of the Seele Family in terms of the conservation of Blue Swallows. She indicated that monitoring must be undertaken by an experienced person due to the sensitivity of the species to any disturbance. She further read from the Avifauna Study in terms of Blue Swallows that "given its dire conservation status, there should be no tolerance for additional impacts on this species, particularly in one of its core range areas".	B. Seele	✓	✓	✓		J Smallie explained that the intention behind the proposed monitoring programme is to make use of the existing monitoring structures.
458.	A Marchant asked if the wetlands to be rehabilitated on Baynesfield Estate, as part of the suggested biodiversity offsets, are located near the Blue Swallow areas.	A. Marchant			✓		D Henning indicated that these wetlands are downstream of the proposed balancing dam, near the Blue Swallow nesting sites.

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459.	A Marchant enquired about the impacts to groundwater, as Blue Swallow nests are created in sinkholes.	A. Marchant		✓			K Bester explained the tunnelling process and indicated that the tunnel will be lined with concrete, based on the findings of geotechnical investigations.
460.	I Felton mentioned that the establishment of an offset committee could be included by DEA as a condition in the authorisation, if granted. He noted that the impacts to Blue Swallows are more difficult to quantify as compared to other environmental features. He further stated that biodiversity offsets need to be catered for in the project budget to allow the funders to consider this matter upfront. He also indicated that the government structure in terms of the implementation of the biodiversity offsets needed to be established and taken into consideration during decision-making.	I. Felton (KZN EDTEA)	✓	✓	✓		<i>Refer to response provided for no. 471 regarding biodiversity offsets. Provision is made for a uMWP-1 Biodiversity Monitoring Committee, as well as the institutional arrangements to plan and implement the offsets.</i>
461.	N Theron noted that the biodiversity offsets could benefit grassland overall, even though there is not a large area of grassland to be lost. However, it is not possible to offset Blue Swallows as a flagship species. He also enquired about avoiding construction over the breeding season.	N. Theron (Birdlife SA)	✓	✓	✓		D Henning indicated that provision will be made for the avoidance of high-risk areas, such as the tunnel shaft in the eastern part of the project area and geotechnical investigations near nesting areas, during the breeding season as part of the proposed Blue Swallows Management & Mitigation Plan.
462.	C Hughes indicated that based on her past experience she does not have any confidence in the implementation of an EMPr and compliance monitoring thereof in light of the sensitive nature of Blue Swallows.	C. Hughes (Endangered Wildlife Trust)	✓	✓	✓		<i>The appropriate governance framework, with roles and responsibilities for the implementation, monitoring and enforcement of the mitigation measures is included in the EMPr.</i>
463.	M van Deventer stated that corrective measures need to be considered to prevent impacts to Blue Swallows.	M. van Deventer (Baynesfield Estate)	✓	✓	✓		D Henning indicated that this will form part of the proposed Blue Swallows Management & Mitigation Plan.
464.	B Seele emphasised that this project will impact on almost half of the remaining Blue Swallow population, and could lead the overall extinction of the species.	B. Seele	✓	✓	✓		<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>
465.	A Marchant stressed that there is no room for error in terms of Blue Swallows, and the worst case scenario needs to be taken into consideration.	A. Marchant	✓	✓	✓		<i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i>
466.	A Marchant indicated that a combined management plan needs to be compiled for biodiversity, which also includes other sensitive species such as Oribi, cranes, butterflies, etc.	A. Marchant	✓	✓	✓		<i>Mitigation strategy in final EIA Report includes endangered species as well as other sensitive ecological features.</i>

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467.	A Marchant mentioned that the minimum monitoring frequency needed to be stipulated.	A. Marchant	✓	✓	✓		D Henning noted that the monitoring ToR will be developed in consultation with the Working Group.
468.	I Felton stated that monitoring is not mitigation, but rather provides the information with which to respond. He supported the need for corrective measures.	I. Felton (KZN EDTEA)	✓	✓	✓		<i>It is proposed that an uMWP-1 Biodiversity Management and Mitigation Plan be developed during the pre-construction phase, which needs to be reviewed by the uMWP-1 Biodiversity Monitoring Committee before submission to DEA for decision-making. This plan must make provision for the following –</i> <ul style="list-style-type: none"> • <i>Management Objectives & Targets;</i> • <i>Management Actions;</i> • <i>Implementation Timeframes;</i> • <i>Monitoring;</i> • <i>Corrective Measures;</i> • <i>Responsibilities; and</i> • <i>Reporting.</i>
469.	S McKean stated that the Working Group needs to work together and not against each other.	S. McKean (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>The purpose of the proposed uMWP-1 Biodiversity Monitoring Committee includes (amongst others) providing on-going input into mitigation measures for uMWP-1 to manage impacts to sensitive ecological features, as well as receiving feedback and commenting on the performance and progress of mitigation measures.</i>
470.	B Coverdale noted the following in terms of a way forward: <ul style="list-style-type: none"> • He advised the attendees of the meeting to provide comments on the final EIA Report; • He noted that the Working Group will be included as a condition of the Environmental Authorisation, if granted; • He indicated that adequate ToR are required for biodiversity monitoring; and • The details of the follow-up meeting for the Working Group will be confirmed. 	B. Coverdale (Ezemvelo KZN Wildlife)	✓	✓	✓		<i>Way forward agreed to by attendees of the meeting.</i>
Source: Correspondence (Letter) – 20 September 2016							
471.	Biodiversity Offsets: The proposed dams will inundate large areas of wetland and riparian habitat and other areas of conservation importance within the basins. It is proposed that biodiversity offsets would be necessary to address these impacts. The success of any proposed offsets hinge on the availability of	I. Felton (KZN EDTEA)	✓	✓	✓		The proposed approach to biodiversity offsets for uMWP-1 is discussed in Section 12.11 of the final EIA Report. This section was revised following the receipt of these comments and subsequent discussions with I. Felton from KZN EDTEA. The approach considered the Comprehensive Guideline for Biodiversity Offsets: KwaZulu-Natal Province (EKZNW, 2013). DEA was also engaged to understand their current policy on

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>suitable areas to ensure no nett loss of wetland and biodiversity functionality. The Aquatic and Wetland baseline ecological integrity and potential impact surveys report produced by Enviross CC has identified that the wetland areas within the Smithfield dam are in a near pristine state. Approximately 135Ha of riparian habitat and 145 Ha of wetland would be lost in the development of the dam. The report further recommends that offsets in the form of erosion management and education of local subsistence farmers be implemented. The Department considers that these measures are inadequate to offset the loss of significant areas of wetland and riparian habitat.</p> <p>KZN EDTEA does not support the granting of environmental authorisation without having clearly identified areas where these offsets are to occur and a clear strategic plan in place that provides for the implementation of these offsets (including budget allocation and governance structures). This is to ensure that the proposed offsets are feasible, practical and lawful. The estimated costs for implementation of these proposed offsets needs to be established and funding allocated to plan and implement these offsets. These costs must be "ring-fenced" in the total budget costs from the inception.</p> <p>The Draft EIA report and associated specialist studies do not provide sufficient information to make an informed decision in respect to the application and need to be supplemented with a strategic offset management plan that considers the offsets in accordance with the draft policies and guidelines of offsets issued by the Department of Environmental Affairs and Ezemvelo KZN Wildlife. The offsets must also include impacts on species of conservation importance.</p>					<p>biodiversity offsets and to explore opportunities in terms of DEA's Natural Resource Management (NRM) Programmes.</p> <p>Information is provided on the key project components that directly impact on significant biodiversity, as well as the status and loss of the affected biodiversity features.</p> <p>The goal of biodiversity offsets proposed as part of uMWP-1 is to achieve no net loss, with the focus on providing a like for like area of the same habitat structure, species composition and ecological function. The preliminary offset ratio for wetlands considered in terms of uMWP-1 is 3:1, which means that for every 1 Ha of wetland lost an offset of 3 Ha would have to be secured to counterbalance the loss. This ratio is based on the approach adopted for Spring Grove Dam, as part of Phase 2 of the Mooi Mgeni Transfer Scheme, where a large proportion of the dam basin was classified as a Critical Conservation Area 1. The appropriate ratio would need to be confirmed as part of the detailed offset planning, taking into consideration the conservation significance and functionality of the wetlands to be affected.</p> <p>In the case where there are no suitably sized land parcels available (or cannot be acquired), which will be established as part of the detailed design of the biodiversity offsets, monetary compensation may be warranted. This may entail financial contributions to an accredited biodiversity conservation programme, with the appropriate agreements and auditing systems in place. The final EIA Report provides indicative costs for biodiversity offsets, which form part of the overall budget of the project and will be ring-fenced for this explicit purpose.</p> <p>Various potential receiving areas for offsets are presented, which need to be investigated further. These include:</p> <ul style="list-style-type: none"> • Smithfield Dam and associated infrastructure – <ul style="list-style-type: none"> ○ Promoting ecological infrastructure (rehabilitation of eroded areas and reinstatement of suitable ground cover in the uMkhomazi catchment, or implementing an education programme); ○ Extending the Impendle Nature Reserve as part of the Protected Area Expansion Programme; ○ Rehabilitation of mistbelt grassland that has been 	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>affected by agriculture and forestry;</p> <ul style="list-style-type: none"> • Balancing dam and associated infrastructure – <ul style="list-style-type: none"> ○ Rehabilitation of similar wetland types along the Mbangweni River and uMlaza River, which are impacted on by agricultural and forestry activities, encroachment of exotic vegetation and erosion. These potential recipient wetlands also fall within CBA Irreplaceable and CBA Optimal, which are provincial biodiversity priority areas. <p>DWS, as the applicant for the project, will remain responsible for meeting any offset requirements; however, conservation and biodiversity management do not form part of the core functions of this Department. There are other Government Departments, agencies and programmes which focus on and are more geared towards designing and implementing offsets which may offer viable options for pursuing the uMWP-1 offsets. These include DEA's NRM Programmes (e.g. Working for Water, Working for Wetlands, Working for Land, Working on Fire), EKZNW's Biodiversity Stewardship Programme, KZN Department of Agriculture and Rural Development's (DARD) land care programme and initiatives by conservation NGOs. These may offer viable offset implementation mechanisms for uMWP-1.</p> <p>An overview of the proposed institutional structure for the uMWP-1 biodiversity offsets is also provided in Section 12 of the final EIA Report.</p> <p>The detailed design of the biodiversity offsets is proposed to take place during the pre-construction phase, which will include compiling an Offset Report and Offset Management Plan which need to be submitted to DEA for decision-making.</p>
472.	<p>Blue Swallow Impacts: Of particular concern to KZN EDTEA is the potential impacts associated with the development of the dam and associated infrastructure on the Blue Swallow population in the area. This species is critically endangered and the development has the potential to significantly impact on important breeding areas of this species. The development has the potential to result in the species becoming locally extinct in South Africa and this is of National</p>	I. Felton (KZN EDTEA)	✓	✓	✓		<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>and International relevance.</p> <p>The Draft Avifaunal Study dated September 2015 produced by Wildskies Ecological Services clearly identifies that more technical detail and further studies are required on the extent to which tunnel drilling will create noise and vibration and what the potential impacts would be on the nesting sites and breeding success of the Blue Swallows in the vicinity of the tunnel. The avifaunal study suggests that mitigation could include limiting tunnel construction during the nesting and breeding period of the Blue Swallows. This is however unlikely to be a feasible mitigation measure given the costs and implications of stopping construction for extended periods.</p> <p>Prior to making a decision to issue environmental authorisation the Department of Environmental Affairs must fully understand the potential consequences and impacts of the development. The decision must ensure that the loss of biodiversity is avoided, or, where this cannot altogether be avoided, and minimised or remedied. Furthermore, a risk-averse and cautious approach must be applied that takes into account the limits of current knowledge and the consequences of decisions and actions.</p> <p>The Draft EIA report and specialist avifaunal study do not provide sufficient information on the potential impacts on Blue Swallow or potential mitigation and remedial measures that will allow for an informed decision on the application. KZN EDTEA considers this a critical requirement of the EIA process.</p>						
Source: Correspondence (Letter) – 26 September 2016							
473.	<p>Comment on Report: Gauging Weir</p> <p>Of note: the situation of the preferred site #3 at Location 3, is as far as can be ascertained, situated on a private nature reserve previously known as</p>	P. Rees (DUCT)	✓				This EIA is only assessing the gauging weir located immediately below Smithfield Dam, which falls on Ingonyama Trust Board (ITB) land. Separate applications will be required for the other two weirs.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Highover Nature Reserve. This is not indicated in the Gauging Weir report nor under the EI report under protected areas.						

6.3 Water Resource Management

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
474.	P Odell asked about the impact of the balancing dam on river flow.	P. Odell (NCT Tree Farming (Pty) Ltd)			✓		<p>J Nyakale indicated that the required flow in the river will need to be determined taking into consideration factors such as downstream water users and the Ecological Water Requirements. He indicated that releases from the balancing dam would need to make provision for these water requirements.</p> <p>D Henning indicated that the entitlements of existing lawful water users are protected.</p>
475.	M van Deventer stated that Mbangweni Dam, which is downstream of the proposed balancing dam, consistently overflows and thus there is always water available downstream.	M. van Deventer (Baynesfield Estate)			✓		<p>K Bester indicated that the hydrological analysis of AECOM, who undertook the feasibility study for uMWP-1 Raw Water, found that water releases from the balancing dam will maintain the current situation. He also noted that the dam is small in comparison with the capacity of the raw water pipeline.</p> <p>G Subramanian noted that the balancing dam will primarily be filled from the transfer scheme and not from incremental flow within its catchment, which provides a higher assurance of water supply.</p> <p>J Nyakale noted that downstream water users are catered for through water releases from the dam rather than overtopping.</p>
476.	S McKean asked if attention will be given to catchment management in terms of the rehabilitation of eroded areas.	S. McKean (Ezemvelo KZN Wildlife)	✓				<p>D Henning noted that the EIA Report (uMWP-1 Raw Water) recommends the promotion of ecological infrastructure be taken forward as part of biodiversity offset for uMWP-1, which may entail the rehabilitation of eroded areas and reinstatement of suitable ground cover in the uMkhomazi catchment. He further indicated</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							that the future Resource Management Plan for Smithfield Dam could include a dedicated Business Plan for rehabilitation of eroded areas within the catchment. <i>Refer to response provided for no. 471 regarding biodiversity offsets.</i>
477.	S McKean indicated that he would like to see recommendations with regards to catchment management and biodiversity offsets.	S. McKean (Ezemvelo KZN Wildlife)	✓				D Henning noted that biodiversity offsets suggested in the EIA Report (uMWP-1 Raw Water) included amongst others the possible extension of the Impendle Nature Reserve, based on discussions held with Ezemvelo KZN Wildlife. He also indicated that suggestions related to catchment management were included in terms of support to ecological infrastructure. He noted that catchment management extends beyond the EIA and it includes other mandated parties. <i>Refer to response provided for no. 471 regarding biodiversity offsets.</i>
Source: Correspondence (Email) – 04 July 2016							
478.	<ul style="list-style-type: none"> How and by whom will the catchment be rehabilitated and restored to ensure that the dam does not fill up with silt and quickly lose capacity and thus become fruitless and wasteful expenditure of public funds? Please refer to the DUCT and uMzimvubu Catchment Management Partnership Programme for workable models for rehabilitating and restoring catchments. 	J. Bell	✓				The EIA Report states that as part of catchment management initiatives, and in support of the concept of ecological infrastructure, erosion needs to be addressed within the uMkhomazi catchment. Catchment Management is in principal supported and promoted by DWS, with collaborative initiatives from other Government Departments (e.g. landcare programme under DAFF). <i>Refer to responses provided for no. 186, 302, 471 and 507 regarding Ecological Infrastructure.</i> A Sediment Yield assessment was conducted as part of the uMWP-1 Technical Feasibility Study, and relevant information was extracted and included in the EIA Report. <i>Refer to responses to no. 158 and 184 regarding impacts from siltation to the dam's storage capacity.</i>
479.	For how many years will this catchment management budget be allocated and how much money will be provided?	J. Bell	✓				The uMzimvubu EIA authorisation and catchment partnership should be a good guidance for the uMWP-1 and what could be expected or aspired to.
Source: Correspondence (Email) – 05 July 2016							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
480.	How does this EIA match up/integrate with the previous reports of 1999? https://www.dwa.gov.za/Projects/uMkhomazi/Documents/Mkomazi%20Main%20Report.pdf ?	R. Crankshaw	✓	✓	✓	✓	The report of 1999 you referred to formed part of the Pre-Feasibility Study. Thereafter the Feasibly Study was initiated in 2011 and was finalised in 2015 – please refer to the deliverables contained on the project website (https://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx). The Department makes use of an incremental approach when conducting feasibility studies. A reconnaissance study will typically identify all possible dam/abstraction sites (sometimes up to 50). It will often be followed up with pre-feasibility study where the best sites from a cost and environmental perspective will be evaluated further. Only then (sometimes up to 6 years of analysis) will the Department do a feasibility study and an EIA.
481.	Are you referring to environmental management programmes like Ecosystem-based Adaptation, and are you saying DEA should be building (reference to) programmes like this into EIAs?	R. Crankshaw	✓				<i>Query linked to email from J Bell - see no. 478.</i>
482.	The DUCT and Umzimvubu Catchment Management Partnership Programme was funded by CEPF, right? Are you saying this programme should follow a similar course and get outside funding?	R. Crankshaw	✓				<i>Query linked to email from J Bell - see no. 478.</i>
Source: Meeting with KwaZashuke Traditional Council and Community (KwaZashuke Traditional Council Hall) – 16 July 2016							
483.	B Dlamini indicated that floods had been experienced in 1989 and asked how this would be managed.	B. Dlamini	✓				D Henning indicated that the buffer zone around the dam was based on the safe operation of the dam, which took into consideration the 1:100 year floodline.
Source: Correspondence (Letter) – 14 August 2016							
484.	<i>Linked to no. 354.</i> <ul style="list-style-type: none">How and by whom will the catchment be rehabilitated and restored to ensure that the dam does not fill up with silt and quickly lose capacity and thus become a fruitless and wasteful expenditure of public funds?	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<i>Refer to response provided for no. 478.</i>
485.	<ul style="list-style-type: none">For how many years will a catchment management budget be allocated and how much money will be provided?	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<i>Refer to response provided for no. 479.</i>
486.	<ul style="list-style-type: none">We suggest that the DUCT and uMzimvubu Catchment Management Partnership	C. Schwegman (Coastwatch	✓	✓	✓		<i>Refer to response provided for no. 479.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Programmes for workable models for rehabilitating and restoring catchments are considered.	KZN)					
Source: Correspondence (completed Comment Sheet) – 15 August 2016							
487.	<p><i>Linked to no. 388.</i></p> <p>We would also like to reinforce the general concerns raised around the hydrological impacts of the project. The lack of hydrological baseline data is problematic. As identified in the EIA, the dam will disrupt the existing ecosystems in the uMkhomazi valley – inundating riparian, aquatic and grassland systems and disrupting their ecosystem function. This will also alter the ecological flows of the system as well as the supply of water to downstream ecosystems and water users. Further disruptions are anticipated to fauna corridors. Many of these issues have been raised by DUCT in their comments on the scoping report (2014). Although many aspects have been explored in a fair amount of detail and in the EIA, some of the mitigation measures are very generic, and the impacts not adequately considered. DUCT has furthermore raised concerns in terms of requirements for the ecological reserve under the parallel process of determining the Resource Quality Objectives for the Mvoti To Umzimkulu Water Management Area (see letter from DUCT to the DWS dated 16 August 2016). We would like to support these concerns, and request that they also be addressed as part of this project.</p>	C. Hughes (Endangered Wildlife Trust)	✓	✓	✓		<p><i>Refer to response provided to follow up email captured against no. 488 regarding hydrological data.</i></p> <p>The EIA Report assesses potential impacts associated with the construction and operational phases of the project in terms of the “resource quality” of the affected watercourses, which is defined by the National Water Act (Act No. 36 of 1998) as the following:</p> <ul style="list-style-type: none"> • Quantity, pattern, timing, water level and assurance of in-stream flow; • Water quality, including physical, chemical and biological characteristics of the water; • Character and condition of the in-stream and riparian habitat; and • Characteristics, condition and distribution of the aquatic biota. <p><i>Refer to response provided for no. 300 and 497 regarding the Reserve (EWR).</i></p>
Source: Correspondence (Email) – 16 August 2016							
488.	<p><i>Follow-on email – refer to no. 388.</i></p> <p>Could I ask – was there an update to the hydro study? I see it was done in 2014 and there was a lack of data then – was there any monitoring/interpretation thereafter? I may have missed an additional report on the website.</p>	C. Hughes (Endangered Wildlife Trust)	✓	✓	✓		<p>The engineers (copied in on this email) have requested clarity with regards to the following statements:</p> <ul style="list-style-type: none"> • “lack of hydrological baseline data for uMWP-1” - If this relates to stream flows then please note that there’s plenty of gauged data very close to the site (gauge U1H005) and this was published in the report. • “update to the hydrological study” - Is that after the feasibility

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>study? Why would we update hydrology that was recently published and accepted?</p> <p>If it will help, you are more than welcome to contact the engineers directly to discuss (Hermien Pieterse, AECOM – T: +27-12-421-3628), and then to provide updated comments that we should include in the EIA. The engineers were also involved during the EIA and provided technical input.</p> <p>Response from technical team: We also consider stream flow gauge U1H005 to be reliable. There may be other catchments in KZN with a more representative distribution of rainfall gauges in the upper high rainfall areas (Drakensberg), but we nonetheless concluded the resulting hydrology to be of adequate reliability for Feasibility Design purposes. Details in this regard are provided in our Hydrology Report.</p>
Source: Meeting on Trewirgie Farm – 18 August 2016							
489.	L Seele enquired about water that is unaccounted for in the eThekweni Municipality, as well as the volume of water to be transferred from the uMkhomazi River.	L. Seele	✓	✓	✓	✓	<p>K Bester explained water losses experienced in this area. He indicated that uMWP-1 will provide approximately 200 million m³ to the Integrated Mgeni Water Supply System.</p> <p>D Henning indicated that the EIA Report includes a section on screened options that were considered to increase the water resource (apart from a transfer scheme), which includes desalination, use of treated effluent, etc.</p>
Source: Correspondence (Email) – 25 August 2016							
490.	<p><i>Follow-on email – refer to no. 388.</i></p> <p>My intention was not to criticize the report in any way. I was responding to the second paragraph of the Exec Summary which states that there is a lack of rainfall and gauge data, which is a fair concern for such a significant project. All I was asking was whether, since the report (2014), any attempt had been made to monitor/analyze any streamflow and/or rainfall at the site, and whether this is ongoing.</p>	C. Hughes (Endangered Wildlife Trust)	✓	✓	✓		<p>Response from technical team: Thanks for the clarification. It is a fair question. In short, the answer is no, the Department has not been doing any actual additional monitoring in the upper catchment since 2014. However, bear in mind that 2 years of monitoring would not provide much benefit from a long-term planning perspective as we need long continuous data sets to ensure that we capture historical extreme dry and wet periods. That being said, note that we are currently also involved in a separate DWS project to evaluate the National Water Resources Monitoring Network and, as part of this project, recommendations will be made on the need for additional monitoring across the entire country. In this way the issue in the uMkhomazi catchment will be identified and highlighted for further action by the</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							Department.
Source: Blue Swallows Working Group Meeting – 12 September 2016							
491.	A Marchant indicated that the dam will only have a lifespan of 50 years and catchment management is thus crucial.	A. Marchant	✓				D Henning noted that the EIA Report recommended the investment in ecological infrastructure in the uMkhomazi River catchment. <i>Refer to response provided for no. 471 regarding biodiversity offsets.</i>
492.	C Hughes enquired about the Unit Reference Value (URV) determined for uMWP-1. C Hughes indicated that she is involved in an initiative of the Green Fund that looks at Ecological Infrastructure. She noted that that URV that had been calculated as part of this venture, which took into consideration the rehabilitation of the catchment, was far lower than the URV for uMWP-1. She emphasised that more water can be gained through catchment management.	C. Hughes (Endangered Wildlife Trust)					K Bester indicated that the URV for desalination these days is approximately R15/kilolitre and for the transfer scheme it was calculated at about R8/kilolitre, taking into consideration various factors.
493.	S McKean noted that catchment management will reduce siltation, which will lengthen the lifespan of the dam.	S. McKean (Ezemvelo KZN Wildlife)	✓				K Bester mentioned that siltation had been considered as part of the Feasibility Study for uMWP-1.
494.	S McKean noted that there is an opportunity to involve rural communities in catchment management if the project proceeds.	S. McKean (Ezemvelo KZN Wildlife)	✓				<i>Could be explored through RMP process for dam.</i>
Source: Correspondence (Letter) – 20 September 2016							
495.	Ecological Infrastructure Alternatives: The assessment process has not paid sufficient attention to alternative options for ensuring the surety of water supplies through maintaining, managing and enhancing ecological infrastructure in the uMngeni, Mooi and uMkhomazi catchments. International and National and local research has provided significant support for catchment management interventions as a viable and more cost effective approach to providing water. These interventions have proven to not only improve water quality but substantially increase yield and far lower	I. Felton (KZN EDTEA)	✓	✓	✓		<i>Refer to response provided for no. 471 regarding the approach to biodiversity offsets.</i> The proposed approach to biodiversity offsets for uMWP-1 is discussed in Section 12.11 of the final EIA Report, which also supports ecological infrastructure. DWS, as the applicant for the project, will remain responsible for meeting any offset requirements; however, conservation and biodiversity management do not form part of the core functions of this Department. There are other Government Departments, agencies and programmes which focus on and are more geared

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>costs than hard infrastructure. In this respect consultation should be made with local specialists including Prof. Graham Jewitt of the University of KwaZulu-Natal and Dr. Mark Graham of GroundTruth.</p> <p>There needs to be a clear financial linkage between the provision of hard infrastructure and the protection, maintenance and management of ecological infrastructure to ensure the implementation of the “polluter pays” principle enshrined in the National Environmental Management Act. Should the dam be approved a condition of authorisation should require that water tariffs associated with the provision of raw water from the proposed dam include a reasonable percentage allocated and ‘ring-fenced’ to implement measures to protect, maintain and manage ecological infrastructure in the upper uMkhomazi catchment.</p>						<p>towards designing and implementing offsets which may offer viable options for pursuing the uMWP-1 offsets. These include DEA’s Natural Resource Management (NRM) Programmes (e.g. Working for Water, Working for Wetlands, Working for Land, Working on Fire), EKZNW’s Biodiversity Stewardship Programme, KZN Department of Agriculture and Rural Development’s (DARD) land care programme and initiatives by conservation NGOs. These may offer viable offset implementation mechanisms for uMWP-1.</p> <p>The aforementioned programmes and initiatives could contribute towards restoring and maintaining ecological infrastructure, with a focus on the water production areas. An example of a critical intervention considered as part of the EIA to support ecological infrastructure is the rehabilitation of eroded areas and reinstatement of suitable ground cover in the uMkhomazi catchment. Another means of supporting ecological infrastructure is implementing an education programme in the catchment on soil conservation and sustainable land utilisation.</p>
Source: Correspondence (Letter) – 26 September 2016							
496.	<p>Comment on Report: EIA Outdated studies, over 20 years old are being used which is not acceptable: Page 69: The Pre-feasibility Study follows on from the Mgeni River System Analysis Study carried out between 1991 and 1994, in which the uMkhomazi River was identified as a potentially viable source of water for augmentation of the Mgeni System, and the Mooi-Mgeni Transfer Feasibility Study carried out in 1995, in which the first phase scheme to augment the Mgeni System from the Mooi River was investigated in detail and possible second phase schemes were identified.</p>	P. Rees (DUCT)	✓				<p><i>Refer to response provided for no. 308 regarding the Feasibility Study.</i></p>

6.4 Freshwater and Estuarine Ecology

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 04 July 2016							
497.	How will the river downstream of the dam be able to function to achieve the objectives and classification that are in the process of being gazetted for the river and the estuary?	J. Bell	✓				<p>Refer to response provided for no. 300 regarding the Reserve (EWR).</p> <p>Information from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA: Volume 7a: Recommended Water Resource Classes for the Umkhomazi and Mvoti River Systems (2014) was included in the EIA Report.</p> <p>Refer to the Hydrological Assessment of the Umkhomazi River Catchment report, report no. P WMA 11/U10/00/3312/2/1.</p> <p>The operating rule for Smithfield Dam and the balancing dam shall ensure that the existing ecological water use is not affected (i.e. current assurance of supply will not be adversely affected) thus the EWR for the affected rivers as well as for the uMkhomazi Estuary are satisfied.</p>
Source: Correspondence (Letter) – 14 August 2016							
498.	<p><i>Linked to no. 354.</i></p> <ul style="list-style-type: none"> How will the river downstream of the dam be able to function to achieve the objectives and classification that are in the process of being gazetted for the river and the estuary? 	C. Schwegman (Coastwatch KZN)	✓	✓	✓		Refer to response provided for no. 300 and 497 regarding the Reserve (EWR).
499.	<p><u>IMPACTS ON THE uMKHOMAZI RIVER SYSTEM</u></p> <p>Although 19 rivers (nationally) have been identified as flagship free-flowing rivers, this does not include the uMkhomazi River (Nel et al. (2011), the conservation status of the rivers in the study area as defined by the National Freshwater Ecosystem Priority Areas (FEPA) assessment is provided (Figure 130). FEPA rivers, wetlands and estuaries need to stay in a good condition in order to conserve freshwater ecosystems and protect water resources for human use (Nel et al,</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>The Aquatic Impact Assessment recommended that offset mitigation measures be considered to compensate for the inevitable loss of ecologically important aquatic habitat.</p> <p>Refer to response provided for no. 471 and 507 regarding Ecological Infrastructure.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>2011).</p> <p>The proposed Smithfield Dam (dam site) and associated infrastructure (inter alia balancing dams, gauging weir, raw water pipelines, roads, quarry and borrow pits, waste disposal site for spoil) will directly impact sections of the Mkhomazi and Luhane river and wetlands which are classified as FEPA systems.</p> <p>The following major impacts are of concern.</p> <ul style="list-style-type: none"> • <u>Loss of wetlands and riparian/riverine areas</u> <p>The Aquatic Impact Assessment describes the loss of wetland and riverine habitat. Approximately 135 ha of riparian vegetation and 55 ha of wetland habitat will be lost with the construction of Smithfield Dam. Approximately 44 ha and 59 ha of wetland habitat will become inundated with the completion of Langa and Mbangweni Balancing Dams, respectively. In addition, the Smithfield Dam FSL inundates approximately 17 km of the uMkhomazi River (main stem).</p> <p>Mitigation of these losses is not dealt with in the EIA process and has been deferred.</p>						
500.	<ul style="list-style-type: none"> • <u>uMkhomazi Estuary</u> <p>The Estuary Importance Score takes size, the rarity of the estuary type within its biographical zone, habitat, biodiversity and functional importance of the estuary into account. Biodiversity importance, in turn, is based on the assessment of the importance of the estuary for plants, invertebrates, fish and birds, using rarity indices. Based on this Estuary Importance was estimated at 85, i.e. the estuary is rated as "Highly Important". The functional importance of the uMkhomazi Estuary is very high. It serves as an important nursery for exploited fish stock and</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>The EIA Report (Section 12.7) includes an extract from the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA: Volume 7a: Recommended Water Resource Classes for the Umkhomazi (U1) and Mvoti (U4) River Systems (DWS, 2014).</p> <p>The individual Estuarine Health Index (EHI) scores, as well as the corresponding Ecological Categories (ECs) under different operational scenarios are provided. The study indicates which scenario with accompanying management interventions is recommended to achieve the REC.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>plays a very important role from a fish egg production perspective. In addition, it is also an important movement corridor for eels (CITES listed species).</p> <p>Can the required B Category be achieved with the increased impacts on the system from the uMWP?</p> <p>The system forms part of the core set of priority estuaries in need of protection to achieve biodiversity targets in the National Estuaries Biodiversity Plan for the National Biodiversity Assessment. Taking the current conditions (PES = C), the reversibility of the impacts, the ecological importance and the conservation requirements of the uMkhomazi Estuary the REC for the system is a B Category.</p>						
Source: Correspondence (Letter) – 26 September 2016							
501.	<p>It is DUCTs contention that the DWS Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives regarding the uMkhomazi River are flawed and since December 2013, DUCT has submitted comment on this issue. (See attached Appendix 1)</p> <p>These concerns have still not been adequately and satisfactorily addressed, and we re-iterate that only three sites to determine the classification of the uMkhomazi River are completely inadequate and do not give enough statistics to provide an accurate PES (Present Ecological State), nor to determine the EFR (Ecological Flow Requirements). Thus impacts cannot be accurately determined / predicted if based on the DWS Classification.</p> <p>This major flaw needs to be rectified.</p>	P. Rees (DUCT)	✓				<p><i>Refer to response provided for no. 300 regarding the Reserve (EWR).</i></p> <p>The operating rule for Smithfield Dam and the balancing dam shall ensure that the existing ecological water use is not affected (i.e. current assurance of supply will not be adversely affected) thus the EWR for the affected rivers as well as for the uMkhomazi Estuary are satisfied.</p>
502.	<p>Comment on Report: Aquatic and wetland ecological and impact surveys Page 4 of the report states that the survey area</p>	P. Rees (DUCT)	✓				<p>Various sites were chosen as part of the Aquatic Impact Assessment along the reach of the uMkhomazi River that would be impacted by the proposed development of Smithfield Dam, as</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	included the reach of the uMkhomazi River at Smithfield that would be impacted by the inundation following the proposed development of Smithfield Dam. Thus impacts on the river downstream of the dam site have not been taken into consideration. This omission needs to be rectified, and the entire river as far as and including the estuary, needs to be studied for impacts.						<p>well as a site downstream of the dam and gauging weir. These sites were chosen as general representative sites that characterised the habitat types within the reach.</p> <p>However, from a regional perspective, the impacts of the following operational scenarios in the uMkhomazi River system were assessed as part of the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA:</p> <ol style="list-style-type: none"> 1. uMWP-1; 2. Bulwer Water Supply Scheme; and 3. Ngwadini Off-Channel Dam (OCD). <p>Each scenario and its associated variables are described in the EIA Report. The scenarios were also ranked in terms of the degree to which they meet the Recommended Ecological Category (REC), which is also discussed in the EIA Report.</p> <p>The target flows to be released from Smithfield Dam to meet the EWR were determined during the Technical Feasibility Study, and are also discussed in the EIA Report.</p> <p><i>Refer to responses provided for no. 300 and 497 regarding the Reserve (EWR) for the affected rivers and the uMkhomazi Estuary.</i></p>
503.	<p>Page 11 states that: <i>The proposed dam site occurs within a rural setting, with rural dwellings, subsistence agriculture and livestock grazing being the main land use features of the area. The predominant surrounding vegetation type is Southern KwaZulu-Natal Moist Grassland of the Grassland biome and Sub-escarpment Grassland bioregion.</i></p> <p>However the reach of river from dam to estuary that will be impacted comprises vast swathes of adjoining land devoid of human habitation as well as a mix of urban (Umkomaas) and rural (both sparsley and heavily populated), as well as subsistence and commercial agriculture as well as industry. The report should include a complete impact assessment for the entire river from dam to estuary and not just the dam</p>	P. Rees (DUCT)	✓				<p>As part of the planning of the transfer scheme, all historical, current and future water requirements for all water use sectors within the uMkhomazi and upper uMlaza River catchments were factored into the calculations, where these sectors include domestic (urban and rural), irrigation, industrial and stock watering, as well as streamflow reductions such as commercial forestry, dry-land sugarcane and invasive alien plants. With the damming of the uMkhomazi and uMlaza Rivers, the downstream water user requirements need to be safeguarded.</p> <p><i>Refer to response for no. 502 in terms of the different operational scenarios considered on a regional scale as part of the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA. Also refer to response provided for no. 300 and 497 regarding the Reserve (EWR) for the affected rivers</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	basin, in order to gain a full understanding of the impacts on the entire river as well as all downstream users and habitats.						<i>and the uMkhomazi Estuary.</i>
504.	Page 31 indicates that the author has referred to the DWA guidelines in determining the EFR (Ecological Flow Requirements) which, as stated above have not been satisfactorily determined. This is of major concern as the EFR calculations could thus be incorrect and will negatively impact the uMkomazi River.	P. Rees (DUCT)	✓				The misgivings regarding the Reserve Study will need to be addressed to the appropriate unit within DWS. The principle of the National Water Act will be applied to the project in terms of provisions for the EWR.
505.	Page 34: The riparian zones of the river reach associated with the proposed Smithfield Dam site are classified as foothills, dominated mostly by cobble beds, but with some sand. However, the reach of river from dam wall to estuary includes, Moist Grassland, Valley Bushveld, Coastal hills and Estuary all of which need to be factored in.	P. Rees (DUCT)	✓				<i>Refer to response for no. 502 in terms of the different operational scenarios considered on a regional scale as part of the Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives in the Mvoti to Umzimkulu WMA.</i>
506.	Viii: <i>It is not thought that the proposed development activities will significantly impact the present Ecological Category of the uMkhomazi River.</i> As research was desktop and only one of three aquatic survey sites on the river are downstream of the proposed dam site how can this be an accurate conclusion and a reliable impact assessment on the section of river from dam wall to estuary. Discussion is lacking on impacts of scouring, turnover, extraction and water temperature of releases: these will all impact the river downstream of the proposed dam. To base the environmental reserve on the DWS Classification of Water Resources and Determination of the Comprehensive Reserve and Resource Quality Objectives will not be accurate.	P. Rees (DUCT)	✓				<i>This statement made in the Aquatic Impact Assessment relates to the present Ecological Category of the uMkhomazi River. The study found that the reach of the uMkhomazi River that was surveyed suffered a change from reference conditions in terms of overall biological integrity, which resulted in an overall C (moderately modified) Ecological Category. Ratings for the fish, aquatic macro-invertebrates, water quality and riparian vegetation were notably high, however largescale erosion within the catchment area resulted in the downgrading of the overall ecological integrity of the system.</i> <i>Downstream impacts on the river are discussed in the following separate sections:</i> <i>Section 12.6.2 – Water use;</i> <i>Section 12.6.3 – Water Quality;</i> <i>Section 12.6.4 – Hydrology;</i> <i>Section 12.6.5 – EWR & Operational Scenarios;</i> <i>Section 12.6.6 – Aquatic Ecology;</i> <i>Section 12.6.7 – Aquatic Weeds;</i> <i>Section 12.6.4 – Sediment Regime; and</i> <i>Section 12.7 – Estuary.</i>
507.	A full report on the Ecological Infrastructure and Ecological Services provided by the uMkomazi River Pre and Post construction of the dam would be	P. Rees (DUCT)	✓				As part of the discussion on biodiversity offsets (refer to Section 12.11 in the final EIA Report), information is provided on the status and loss of the affected ecosystems as a result of the proposed

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	informative and helpful in assessing impacts.						project. This section further recommends that ecological infrastructure be supported as part of biodiversity offset for uMWP-1. An example of a critical intervention to support ecological infrastructure is the rehabilitation of eroded areas and reinstatement of suitable ground cover in the uMkhomazi catchment. Another means of supporting ecological infrastructure that is mentioned is implementing an education programme in the catchment on soil conservation and sustainable land utilisation, which will include a monitoring programme.

6.5 Sediment and Sand Budget

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 14 August 2016							
508.	<p><i>Linked to no. 354.</i></p> <ul style="list-style-type: none"> <u>Coastal Sediment</u> <p>Section 11.2.4.2, Potential Impact on Coastal Sediment Budget and Shoreline Stability, discusses the simulated net effect of the proposed dam as follows: a 46 000 m³/a reduction in sand load at the mouth is expected. The pre-dam mean sand load at the river mouth was calculated as 352 000 t/a, while the post dam sand load is calculated to be 287 000 t/a, with an estimated reduction of sand load of 74 000 t/a (a 21% reduction in sand yield on this river). The main focus is on the shoreline stretching from just south of the uMkhomazi River mouth northwards to Durban. This reduction in sand yield represents a reduction of 18% of all the inland sand load of all the rivers (from the river mouth to Durban), and a 10 %</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>The impact assessment and mitigation measures in terms of the sediment regime are contained in Section 12.6.8 of the EIA Report. An authorities meeting was convened on 2 March 2016 to discuss the potential impact of the proposed Smithfield Dam on the coastal sediment budget and shoreline stability (refer to minutes contained in Appendix H12). Some of the key outcomes of this meeting are also included in the aforementioned section of the EIA Report. Section 15.3 provides recommendations to manage impacts to the sediment regime.</p> <p>It should be noted when sedimentation analysis for dams is done the Department will opt for a relative conservative approach. This is to make sure the system yield is not negatively impacted on. The result of this approach can be seen in practice; a recent silt survey for Hazelmere Dam indicated that there is less silt in the impoundment than what was predicted. This conservative approach was not tuned down for the additional work (coastal sediment budget).</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	reduction in total load at Durban (river and longshore inputs combined). This residual impact has not been/cannot be mitigated.						
Source: Correspondence (Letter) – 26 September 2016							
509.	<p>Comment on Report: Sediment yield It is appreciated that the 2010 sediment yield prediction was used to check the 1992 calculations and visa versa in order to gain an 85% certainty. However if one looks at google images of the area upstream of Smithfield Dam in the area recommended for the gauging weirs, in 2008 there was good basal cover. By 2016 basal cover is primarily non existent. Has this complete degradation been factored into the calculations, which do not mention the completely denuded hillsides in the area. Likewise, although the summary compares Woodstock and Wagendrift Dams as having similarly developed areas bordering the Lesotho Highlands similar to the Impendle and Smithfield Dam catchments, the catchment upstream of Wagendrift Dam seems far less denuded of basal cover when compared to the study site.</p> <p>Of 10 comparative dams listed, only three have been silt tested in the last 16 years: 2009, 2003, 2001. It seems that most dams are long over due for silt tests, and perhaps this is the right time for these to be undertaken in order to understand the full extent of siltation problems afflicting large dams including potentially, Smithfield</p>	P. Rees (DUCT)	✓				Reservoir sedimentation is dependent on catchment sediment yield, which is a function of catchment location and size, as well as sediment yield potential within the catchment. The catchment sediment yield was estimated and the consequent reductions in future storage capacity that can be expected for the proposed Smithfield Dam was determined as part of the uMWP-1 Feasibility Study. This study included selected information on the verification of catchment sediment yield of the proposed Smithfield Dam and the potential impact thereof on the proposed dam development.

6.6 Water Use and Supply

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water	uMWP-1	RESPONSE
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			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 04 July 2016							
510.	<p>Almost the same principles apply as with any WULA's.</p> <ul style="list-style-type: none"> The Modifications to flow drivers and responses of donating stream and receiving stream must be investigated and reported upon? What are the hierarchy of impacts and alternatives (Groundwater/ desalination)? Is the planning not 20 year old? 	P. Ackerman (DWS: Sub Directorate Instream Water Use)	✓	✓	✓	✓	<p>Impacts to affected watercourses assessed as part of the Aquatic Impact Assessment.</p> <p><i>Refer to responses to no. 9, 10, 162 and. 163 regarding alternatives to the project that were considered and documented in the Scoping Report.</i></p> <p>Detailed impact assessment, including the application of the mitigation hierarchy, included in the EIA Report.</p> <p>The objective of the Feasibility Study, which commenced in 2011 and was finalised in 2015, was to finalise the planning of the proposed uMWP-1 at a very detailed level so that the scheme may be accurately compared with other possible alternatives and be ready for implementation (detailed design and construction) on completion of the study. The study included a comprehensive analysis of the hydrology of the entire uMkhomazi River catchment. The technical information included in the EIA documentation is thus current.</p> <p>Requirements to be addressed as part of the Integrated Water Use Licence Application (IWULA) to be submitted to DWS.</p>
Source: Correspondence (Email) – 04 July 2016							
511.	How will the downstream users be assured of a water supply when they currently have their lives and livelihoods affected by the regular drought low flow situations?	J. Bell	✓				<i>Refer to response provided for no. 497.</i>
Source: Meeting at Baynesfield Club – 14 July 2016							
512.	M van Deventer enquired whether Umgeni Water could provide water from this scheme to the Baynesfield area. He noted that Baynesfield Estate is currently treating water and supplying it to the community.	M. van Deventer (Baynesfield Estate)				✓	G Subramanian indicated that Umgeni Water cannot sell water directly to the customer and that the Local Municipality would need to be involved.
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
513.	J van der Merwe noted that RCL experiences problems with water supply in the area.	J van der Merwe (RCL)				✓	G Subramanian indicated that Umgeni Water is not able to supply water directly to the users.
Source: Correspondence (Email) – 14 July 2016							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
514.	At our meeting today I represented The Mbatha Family trust 3. This project will not interfere with my present water sources.	H. Mbatha				✓	Existing water use entitlements shall not be affected (i.e. current assurance of supply will not be adversely affected).
Source: Meeting with KwaZashuke Traditional Council and Community (KwaZashuke Traditional Council Hall) – 16 July 2016							
515.	J Zondi noted that water problems are being experienced in KZN. He further posed questions with regards to the proposed Greater Bulwer Donnybrook Bulk Water Supply Scheme.	J. Zondi	✓				K Bester noted that uMWP-1 is of national significance. He also provided an overview of the Greater Bulwer Donnybrook Bulk Water Supply Scheme.
Source: Correspondence (Email) – 1 August 2016							
516.	<i>Linked to no. 650.</i> 5. The EIA starts with 'The current water resources of the Integrated Mgeni Water Supply System (WSS) are insufficient to meet the long-term water requirements of the system' but what about improving maintenance on existing infrastructure...could you please send me the % water lost through leaks in this system.	B. Seele		✓			<i>Refer to response provided for no. 10 regarding water losses.</i> <i>Refer to responses to no. 9, 10, 162 and. 163 regarding alternatives to the project that were considered and documented in the Scoping Report. In addition, refer to the Reconciliation Study that is available on the project website (http://www.dwa.gov.za/ Projects/uMkhomazi/documents.aspx).</i>
Source: Correspondence (Email) – 14 August 2016							
517.	<i>Linked to no. 353.</i> 2) I had mentioned before in the previous public participation that if the Baynesfield community was to be saddled with the social costs of having a water treatment plant erected in their community then the community should get some benefit. The Baynesfield community does not have access to Umgeni water and provision should be made for this.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	Umgeni Water cannot provide water directly to landowners. This is a function of the municipality.
Source: Correspondence (Letter) – 14 August 2016							
518.	<i>Linked to no. 354.</i> • How will the downstream users be assured of a water supply when they currently have their lives and livelihoods affected by the regular drought low flow situations?	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<i>Refer to response provided for no. 497.</i>

6.7 Groundwater

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
519.	Asked if the tunnelling exercise will affect groundwater.	Ben Seele		✓			<p>K Bester explained that the tunnel will be very deep and will be concrete lined, based on detailed geotechnical investigations, to manage impacts to groundwater. He also indicated that the tunnel will operate under pressure.</p> <p>F Stevens noted that the Durban tunnel was built below the seabed and was very well sealed, which is a practical example of how water ingress into a tunnel can be avoided.</p>
Source: Correspondence (Email) – 4 August 2016							
520.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>2. a) The proposed conveyance tunnel crosses underneath both these farms at an approximate depth that mostly exceeds 400m.- mostly exceeds means that some sections will be less than 400m in depth, please could you give me further details on this, as this directly impacts blue swallow nest structures, and ground water which feeds the spring that the entire Trewirgie relies on.</p>	B. Seele		✓			<p>Refer to the layout and section of the tunnel in Appendix G in the draft EIA Report. Dunbar Estate 1478 and Driefontein 854 are located along chainages (km) 21000 and 26000. As shown in the aforementioned drawing, the maximum depth to invert along these chainages is 536m and the minimum depth is 355m.</p> <p><i>Refer to response in no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response in no. 521 regarding groundwater.</i></p>
Source: Correspondence (Email) – 5 August 2016							
521.	<p>in addition to concerns of the impact of this project on Blue Swallows, Oribi, Hilton Daisy and other rare and endangered species on Trewirgie, we, the land owners of various sections of Trewirgie Farm are also concerned about the impact of the tunnel and the TBM on the ground water and more specifically the spring that the entire Trewirgie farming operation, labour force and Seele family reply on. Has any work been done to investigate the effects that boring could have on the spring? or on the location of the spring? The area where the spring reaches the surface is very close to the proposed tunnel route, and we assume that the spring is fed from a deep lying source as it remains constant throughout the</p>	B. Seele		✓			<p>The system (the tunnel and raw water pipelines to the Balancing Dam and WTW) has been designed to be under pressure because the design team proposed to fill the Langa Balancing Dam without pumping. Where the tunnel is drilled in solid rock no lining will be necessary. Where there is “bad rock” conditions it was proposed that one will need to line the tunnel to prevent the loss of water and water pressure. In addition to this the initial geotechnical investigation showed that the whole tunnel route is dominated by horizontal layers (at places one will have more than one layer before you will find the tunnel). These layers are impermeable - ground water will not reach the tunnel or water from the pressure tunnel will not reach the top layers / aquifers. Therefore it is technical correct to say that once constructed the tunnel will not or should not affect aquifers (boreholes and fountains). The</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>seasons.</p> <p>Could you please give me information on the risks involved, including the possibility of the tunnel being concrete lined and what this means in terms of groundwater.</p> <p>In addition could you please provide me with references of other such tunnels (at this depth) in South Africa or globally?</p> <p>I am aware of examples where tunnels conducting water caused a drop in ground water table to such a degree that a new borehole had to be drilled for the school affected (Gautrain), and understandably, am concerned about the effect of the a) tbm and b) effect of the tunnel on our ground water level and pressure. If the tbm hits the source of our spring water what would the planned course of action be?</p>					<p>proposed tunnel is very deep (more than 100 metres for more than 80% of the time) and we do not expect problematic groundwater intrusion into the tunnel during construction. Further, because groundwater can be problematic during construction you will find that contractors try to prevent groundwater intrusion. In fact at times they will grout up areas and then drill through them. The tunnel construction technologies became so advanced that it is these days possible to drill tunnels underneath the sea.</p> <p>Tunnel lining / grouting often is done by first drilling the tunnel then placing cylindered pre-cast concrete sections (with holes in them). Grout experts would then connect their equipment to the holes in the concrete sections and place with high pressure grout paste (similar to toothpaste), forcing the paste in behind the concrete cylinders - filling all cavities. Once the grout dries up it is impermeable. Grouting will be done to high specifications (design instructions and monitoring) because one would not want to prevent water intrusion into the tunnel as far as possible and once constructed not "lose" water to aquifers.</p> <p>Findings from the geotechnical investigations and feedback from the engineer with regards to this matter are included in the draft EIA Report. As mentioned in the draft EIA Report, detailed geotechnical investigations will be undertaken during the design phase.</p> <p>A good example of how ground water will act where there is a tunnel can be found at Goedertrouw Dam. The Engineers constructed a tunnel to bypass or divert the river during construction. Today it is used to gain access to the dam's intake tower. Most of the tunnel is not lined, only the part that is in the impoundment. It should be noted that this dam is very deep, about 60 metres. Most off the tunnel length is very close to water (not ground water but water) - about 150 meters. Very little water can be seen when walking or driving in the tunnel.</p> <p>The EMPr makes provision for a groundwater monitoring programme (pre-construction - baseline monitoring, construction - status and impacts monitoring).</p>	

Source: Correspondence (completed Comment Sheet and accompanying letter) – 7 August 2016

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
522.	<p><i>Linked to no. 366.</i></p> <p>The permanent effect of the tunnel on the ground water supply.</p>	Dr CA Seele		✓			<i>Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.</i>
Source: Correspondence (completed Comment Sheet) – 8 August 2016							
523.	Concern regarding the effect that this project will have on the spring water source that supplies all the households on the farm with clean potable drinking water.	Monika Seele		✓			<i>Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.</i>
Source: Correspondence (completed Comment Sheet) – 8 August 2016							
524.	<p><i>Linked to no. 367.</i></p> <p>4. The construction of the tunnel poses a direct threat to our ground water. Trewirgie farm, including all farming operations, and inhabitants, relies exclusively on ground water, from a very deep spring. The construction of the tunnel poses a direct risk and threat of water contamination, seepage (as mentioned on page iv of the main report), and a drop in the water table. Please note that no attempt has been made by the project to determine the source of our spring and thereby minimise the threat.</p>	Dr RM Seele		✓			<i>Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.</i>
Source: Correspondence (completed Comment Sheet) – 8 August 2016							
525.	<p>As a directly affected landowner and biodiversity custodian, I would like to state my objection to the construction of the conveyance tunnel (related to the Umkhomazi water project) under Trewirgie Farm. Herewith my concerns and comments:</p> <ul style="list-style-type: none"> Of main concern is the impact of construction of the tunnel on the ground water supply that Trewirgie farm, all related farming operations, labour force and inhabitants exclusively rely on. As documented on pg. iv of the Technical Feasibility Study, Raw Water, Main Report 'seepage from groundwater (into the tunnel) is expected (during construction). This will severely impact our water supply and could also pollute 	BA Seele		✓			<p><i>Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.</i></p> <p><i>Refer to response to no. 664 regarding notification of Trewirgie Farm.</i></p> <p><i>K Bester responded to BA Seele during the public meeting held on 13 July 2016 and indicated that the tunnel would be lined based on detailed geotechnical investigations to manage impacts to groundwater.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>the entire groundwater system</p> <ul style="list-style-type: none"> This afore mentioned risk was not conveyed to the public during the Public meeting held at Baynesfield Estate when I posed the question of risk to groundwater to Kobus Bester. On pg 6-6 of the Technical Feasibility Study, Raw Water, Main Report, it is stated that 'without any pre-grouting, significant water inflow may be expected in the event that a water-bearing fracture is struck', again the negative impact of the construction is of grave concern In addition, no representatives of the project, neither from Umngeni water, Department of Water Affairs & Sanitation, nor from Nema consulting have contacted us directly in order to gather information on the ground water system, and potential impacts of the tunnel construction. 						
Source: Correspondence (completed Comment Sheet) – 10 August 2016							
526.	<p><i>Linked to no. 376.</i></p> <p>2. Impact of the tunnel construction on the current groundwater supply. Currently the drinking water supply to the farm is from a natural spring and any seepage of groundwater into the tunnel may impact the quantity of drinking water available. Secondly, the water quality impacts from dewatering due to groundwater ingress are cause for concern as this is drinking water that may be affected.</p>	Maria Seele		✓			Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.
Source: Correspondence (completed Comment Sheet) – 12 August 2016							
527.	<p><i>Linked to no. 377.</i></p> <p>5. Threat to ground water, Trewirgie Farm Trewirgie Farm, and all associated farming activities, work force and extended Seele family, rely exclusively on water provided from an underground spring on Trewirgie. The proposed tunnel falls very close to the spring. As the spring provides a constant supply of water regardless of season, we assume that it comes from a deep source and could be</p>	B. Seele		✓			Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>directly affected by construction of the tunnel. From pg. iv of Technical Feasibility Study, it states that: "seepage from groundwater is expected", this is of grave concern, as it could cause a severe drop in the ground water table and could lead to the pollution of the entire ground water system. No attempt has been made by representatives of this project to contact Trewirgie land owners and to study the possible impact and effect on our ground water. The long term influence of the pipeline on the water table and spring sources of Trewirgie has not been studied in detail, and in the absence of proof that there will be no negative effect, I request that the pipeline does not go under Trewirgie Farm.</p> <p>6. Comment on UMkhomazi Water Project Phase 1: Module 1: Technical Feasibility Study In the report it is stated that "Without any pre-grouting, significant water inflow may be expected in the event that a water –bearing fracture is struck" – this is of great concern to landowners and businesses such as Trewirgie Farm, where farm operations, labour force and inhabitants rely directly and exclusively on ground water. No studies have been done on the risk of this and the direct and indirect impact on ground water.</p> <p>11. Further comment on raw water EIA draft report Pg. 128 states that 'water occurring in the tunnel during construction must be disposed of'. This is of great concern to Trewirgie Farm as the entire farm relies exclusively on ground water (from a very deep spring). If the tunnel passes through this spring, Trewirgie could lose all water, and in addition, pollution of groundwater would occur. The conclusion to this on pg. 128 that the effects on groundwater and will be minimum and insignificant only take boreholes into account and not deep spring water. Please see comments 5, 6, 17 and 18.</p>						

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>19. Comments on UMkhomazi Water Project Phase 1: Module 1: Technical Feasibility Study</p> <p>“Seepage from groundwater is expected” (pg. iv), as mentioned previously, this is of great concern for landowners and businesses such as Trewirgie Farm, where farm operations, labour force and inhabitants rely directly and exclusively on ground water. No studies have been done on the risk of this and the direct and indirect impact this seepage will have.</p>						
Source: Correspondence (Email) – 14 August 2016							
528.	<ul style="list-style-type: none"> The tunnel under Trewirgie farm is said to be lined with concrete: does this refer to the actual pressure pipe or the tunnel cavity lining? I'm interested in the choice of grouting for the tunnel cavity lining given that there have been documented groundwater issues in the absence of correct grouting. Reading through some of the documentation I see that there is mention of groundwater seepage during construction stage. I also read that the tunnel is "too deep" to affect the groundwater. Please clarify, and provide workings as appropriate? 	L .Seele		✓			Refer to response provided for no. 521 regarding the interaction of the tunnel with groundwater.
Source: Meeting on Trewirgie Farm – 18 August 2016							
529.	C Seele stated that groundwater yield should be tested prior to construction and he also noted that now would be a good time to conduct testing due to the drought.	C Seele		✓			D Henning indicated that this will be included in the Environmental Management Programme as part of baseline monitoring.
530.	<p>L Seele commented that they wanted their concerns regarding groundwater impacts to be noted.</p> <p>C Seele indicated that they would get an independent party to conduct this testing.</p>	L Seele		✓			K Bester responded that as part of mitigation measures boreholes/springs will be tested to check yields and quantity. D Henning confirmed this.

6.8 Proposed Infrastructure

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Amaqadi Traditional Council & Community (Ncwadi Primary School) – 13 July 2016							
531.	E Mdladla enquired about the hazards associated with working underground, as part of the tunnelling exercise.	E. Mdladla		✓			K Bester explained that tunnelling is highly specialist work and will need to be undertaken by skilled workers, with the necessary safety measures in place.
532.	B Ngobo from Imvula Engineers provided an overview of the Greater Bulwer Donnybrook Bulk Water Supply Scheme. He requested collaboration between the two project teams.	B. Ngobo	✓				<i>To be taken forward by DWS.</i>
Source: Meeting at Baynesfield Club – 14 July 2016							
533.	M van Deventer asked about the tunnel boring machine (TBM) works.	M. van Deventer (Baynesfield Estate)		✓			D Henning explained by way of a slide showing the long section of the proposed tunnel. He indicated that two TBMs will be utilised, with the first advancing from the outlet portal to a central access adit and the second from the central access adit towards the inlet portal. He noted that both drives will be undertaken up-grade to ensure drainage of the tunnels.
534.	M van Deventer enquired about the management of spoil material that will be generated as part of tunnelling.	M. van Deventer (Baynesfield Estate)		✓			D Henning explained that the spoil material will be hauled and dumped at new disposal sites that will be created at the inlet and central portals of the tunnel, as well as in the construction of the dam wall of the balancing dam. He indicated that the spoil sites will be rehabilitated after construction.
535.	B Seele asked where the central spoil site would be located and expressed concern that it may be near his property.	Ben Seele		✓			D Henning showed the location of the central adit and spoil site on a drawing. <i>Confirmed that the central spoil site is not situated on the Seele's farm.</i>
536.	S McKean enquired about the lifespan of Smithfield Dam.	S. McKean (Ezemvelo KZN Wildlife)	✓				K Bester indicated that the lifespan would be very long taking into consideration the intended management of siltation. <i>The EIA Report states that under suitable maintenance the lifespan of the dam is estimated to be more than 50 years. Depending on water supply requirements, the dam could possibly be upgraded or at least maintained to cater for projected needs.</i>
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
537.	F Peters enquired about the width of the servitude for	F. Peters				✓	G Subramanian indicated that the approximate width of the

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			Smithfield Dam	Tunnel	Balancing Dam		
	the potable water pipeline.						servitude will be as follows: <ul style="list-style-type: none"> • Permanent servitude - 15 to 20m; and • Construction servitude - 50m.
538.	F Peters noted that the following information is required: <ul style="list-style-type: none"> • Access to farms; • Servitude details; • Maintenance requirements; and • Land acquisition process. 	F. Peters				✓	<i>Information provided in the EIA Report and EMPr.</i>
539.	F Peters asked how Mapstone Dam will be crossed.	F. Peters				✓	G Subramanian indicated that the preferred method entails burying the pipeline in the dam basin.
540.	F Peters asked whether there were two WTWs.	F. Peters				✓	D Henning clarified that only 1 WTW was required and that the preferred site was located on Baynesfield Estate in a timber plantation.
541.	F Peters asked whether there was any flexibility in terms of the pipeline corridor. He noted that the route is approximately 200m away from K Chamblers farm house.	F. Peters				✓	D Henning noted that the EIA considered a 100m corridor (i.e. 50m on either side of the centreline). K Naidoo referred to the management of construction activities related to a bulk water pipeline that were undertaken in close proximity to residences as part of Phase 2 of the Mooi Mgeni Transfer Scheme. She further noted that one on one negotiations were conducted with the affected landowners. <i>Additional route options for the potable water pipeline were assessed following a site visit with certain landowners (including B. Crookes and K. Chamblers) on 22 September 2016. Following an evaluation of these routes it was decided to accommodate a deviation to the alignment in the western section of the project area, with the addition of route Option 1AA. Due to various factors the route deviation in the eastern section was not considered more preferable to the current alignment and was thus not assessed further.</i>
542.	K Chamblers asked how often the proposed pipeline would need to be monitored along the servitude. He noted that other custodians of existing infrastructure on this land often access his property without permission.	K. Chamblers				✓	G Subramanian noted that monitoring along the pipeline servitude will not take place regularly. D Henning indicated that the EIA Report (uMWP-1 Potable Water) includes an Operational Environmental Management Programme which makes provision for the notification of landowners prior to servitude maintenance inspections (amongst others).
543.	R Cassimjee requested information with regards to	R. Cassimjee				✓	D Henning explained Umgeni Water's land acquisition process.

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			Smithfield Dam	Tunnel	Balancing Dam		
	servitude restrictions,						<i>Refer to land acquisition process in EIA Report.</i>
544.	D Bishop requested a detailed map of the pipeline route options in the Umlaas Road area.	D. Bishop				✓	D Henning indicated that he could take the large map that was displayed on the wall (at meeting venue). He also noted that maps had been included in Appendix D of the EIA Report (uMWP-1 Potable Water), which zoomed in on the various sections of the project footprint.
Source: Correspondence (Letter) – 12 August 2016							
545.	<p>INTRODUCTION</p> <p>1. We are instructed by RCL Consumer Foods (Pty) Ltd (RCL) to submit comments and/or objections to the draft Environmental Impact Assessment Report (draft EIAR) of the potable water component to the proposed Umkhomazi Water Project Phase 1 brought by Umgeni Water Amanzi. RCL owns the following properties that will be affected by the proposed pipeline project, according to the draft EIAR.</p> <ul style="list-style-type: none"> -Erf 41 of Portion 6 Umlaas Road -Erf 1174 of Portion 20 Umlaas Poort -Erf 1174 of Portion 10 Umlaas Poort -Erf 881 of Portion 6 Hopewell -Erf 881 of Portion 43 Hopewell -Erf 30 Umlaas Road <p>2. RCL submitted representations during the scoping phase of the project and had discussions with representatives of Knight Piesold, Umgeni Water (G. Subramanian) in March 2014, with Umgeni Water (Dharam Kadathlala) in November 2015, and with the environmental assessments practitioner (EAP), Nema Consulting (D. Henning) in December 2015. Attached marked Annexures "A1" and "A2" is correspondence arising out of the December meetings.</p> <p>3. The concerns raised by RCL related to the proposed routing over the above mentioned portions.</p> <p>4. Specific attention was given to the routing across</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to previous engagement with Eversheds captured under no. 280 and 283 – 289.</i>

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	Erf 41 Portion 6 Umlaas Road, notably labelled Option 1 (the green route) on Appendix "A2" of Annexure "A1" and Annexure "A2", (turquoise route) in Figure 36 on page 122 (the Blue route) on page 130 of the draft EIA report. This routing dissects the property preventing development that has been approved. Details of this is provided below. Two alternate routes were proposed by RCL as depicted in Appendix 3 of Annexures A1 and A2. A third route was proposed by the engineers Knight Piesold (KP) in its report dated 19 January 2016, attached as Annexure B. The route is reflected in figure 9 on page 8 of that report and is carried through into the draft EIAR as Option 1F (the green line) in figure 51 on page 130 of the draft EIAR. This has been accepted by the engineers, the specialists, and the EAP as the preferred route over erf 41, portion 6 Umlaas Road.						
546.	5. In respect of the other sites, RCL has concerns relating to construction of the pipeline due to its vicinity to its chicken houses. RCL has strict biosecurity rules. These rules relate to the prevention of the transmission of disease and the prevention of conditions or vectors that will cause discomfort and affect the immune systems of the birds that may affect the health and breedability of the birds. The breeding operation cannot accommodate excessive noise and dust or any blasting and vibrations arising out of construction activities. The social and economic impacts that can result if these recommendations are not implemented will result in a fatal flaw to this application. Those details are also provided below.	A. Armstrong (Eversheds on behalf of RCL)				✓	The EMPs (Pre-construction, Construction and Operational phases) indicate the following: <i>Ensure compliance with RCL's biosecurity protocols in relation to the construction and maintenance of the pipeline on their properties.</i> <i>Refer also to response to no. 288.</i>
547.	6. On a general note, there is an error in the executive summary of the Potable Water draft EIA at page I where it states that this document serves as the draft EIA report for the raw water component where it should read potable water component. 7. Further, the header of the report incorrectly reflects that it is the final scoping report.	A. Armstrong (Eversheds on behalf of RCL)				✓	Rectified incorrect references to "draft EIA Report for the proposed uMWP-1 Raw Water" and "Final Scoping Report".

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			Smithfield Dam	Tunnel	Balancing Dam		
548.	<p>ERF 41 OF PORTION 6 UMLAAS ROAD</p> <p>8. RCL's concerns in respect of the routing over this property relates to Option 1, the green route on Appendix "A2" of Annexure "A1" and "A2", turquoise route in Figure 36 on page 122 and the Blue route on page 130 of the draft EIA report (all the same route represented in different figures). The development of a logistics hub and warehouse has been approved on Erf 41 Portion 6 Umlaas Road in terms of an environmental authorisation under the National Environmental Management Act, 1998 (NEMA) and under the Municipal Town Planning Scheme. The proposed Option 1 pipeline would prevent this development from proceeding due to the fact that it dissects the property into two. As a consequence of the discussions held with both Umgeni Water and NEMA it was agreed that Option 1 would fall away as an alternative route entirely.</p> <p>9. Further as a consequence thereof RCL submitted two alternative proposed routings in order for the pipeline to be able to connect to the tie-in point of the existing aqueduct. Those alternatives are reflected at Appendix 3 of annexures A1 and A2, and in Figure 6 of the document produced by KP at Annexure "B". KP then presented a revised route as reflected in the blue route at Figure 9 of Annexure "B". It appears as if the pipeline route in Figure 9 is the same as the green line pipeline route reflected as Option 1F in figure 51 on page 130 of the EIA Report. (It is recorded that the draft EIAR report is confusing as depending on which figure one is considering the labelling and colour of the respective pipelines changes.) Whilst RCL would prefer an alternate route proposed by it as reflected in Figure 6 it hereby submits its comments in relation to the route as reflected in Figure 9 of Annexure "B" and Figure 51 Option 1F of the draft EIAR.</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to previous engagement with Eversheds captured under no. 280 and 283 – 289.</i>
549.	10. RCL was given to understand By Umgeni Water that Option 1 as it relates to Erf 41 Portion 6 Umlaas	A. Armstrong (Eversheds on				✓	Although the pipeline route Option 1 is not preferred for technical reasons it is still reflected in the maps contained in the EIA Report

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	<p>Road would fall away entirely. It is concerned to note that this is not reflected throughout the report. It is noted that Option 1 is still included in figure 51.</p> <p>11. It is recorded however that Option 1 F is recommended as the preferred option, and the best practicable environmental option, in the discussions of the alternatives, and as is recorded at page 388 and 389 of the report.</p> <p>12. RCL objects to the draft EIAR in that it still incorrectly records Option 1 over erf 41 portion 6 Umlaas Road, as an alternative in the following instances:</p> <ul style="list-style-type: none"> o On the condensed locality map on page II and listed as an alternative in the table at page V; o Option 1 is still reflected in Figure 9, the locality map on page 14; o Option 1 as it relates to Erf 41 Umlaas Road is included as an alternative at page 62 and as such this reference should be amended. o Appropriate routing considerations as it effects Erf 41 were not considered and are not reflected on page 64. o Table 28: Potable water pipeline routes: Discarded and Feasible options - page 114. It is noted that Option 1 as it relates to Portion 41 Umlaas Road is still reflected and is not discarded as an alternative. Option 1F is not included as a feasible option. o The same applies to table 129. o Figure 36 still depicts Option1 on erf 41. o Figure 51 on page 130 - Option 1 as it relates to Erf 41 is still reflected and is not acceptable. Option 1F as it appears in Figure 51 is acceptable to RCL. RCL accepts the discussion of route Option 1F as it appears in Figure 51 and discussed on page 132 and 133. 	behalf of RCL)					<p>as one of the alignment alternatives that were considered and assessed during the course of the EIA. This also serves to convey the overall pipeline route enhancement that took place in the Umlaas Road area following public participation and technical evaluations.</p> <p>Following the comparative analysis of all the alignment options, with input from the technical team and environmental specialists, Option 1F was selected as the best practicable environmental option.</p> <p>The following factor was included in Section 9.3.2 of the draft EIA as an influence to the routing of the pipelines: <i>Impacts to future developments earmarked for the project area (based on input from I&APs).</i></p> <p>Section 9.7.6 reflects the changes to the pipeline route, based on comments received from RCL (and Eversheds), as well as the identification of Option 1F as a new feasible alternative for the pipeline alignment.</p> <p>Option 1F subsequently included in Table 28.</p> <p>Included statement in Table 28 that Option 1 is a feasible option, except in the Umlaas Road area.</p> <p>Included the following statement in Section 9.5.5.3 under Route Option1: <i>It is noted that the last section of route Option 1 was no longer deemed feasible, due to the impacts associated with a planned development on Umlaas Road Erf 41.</i></p> <p>Updated Table 77 reflects Option 1 as least preferred in terms of impacts to the following:</p> <ul style="list-style-type: none"> • Land use; • Surface water; • Agriculture; • Socio-economic aspects; • Existing structures and infrastructure; • Road network and access; • Visual quality; • Technical; and

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							<ul style="list-style-type: none"> I&APs comments.
550.	13. The draft EIAR does not address or quantify the social and economic impacts of Option 1 as opposed to option 1F, and the devaluation of property in respect of Umlaas Road Erf 41, and the consequential damages, and as such renders the report fatally flawed in this regard.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>Section 5.5.2 of the Socio-Economic Impact Assessment notes the concerns raised by RCL in terms of route Option 1. This study also identified route Option 1F as the preferred alternative.</p> <p>The comparative analysis of impacts for the pipeline route in the eastern section (Table 77) shows Option 1 to be least preferred and Option 1F to be most favourable in terms of socio-economic aspects.</p>
551.	<p>14. At paragraph 9.7.6 on page 148 of the EIAR the additional alternatives to the pipeline route in the Umlaas Road area as suggested by RCL is discussed. They are marked in black and blue on figure 75, and in Appendix A3 of Annexure A1 and A2. The yellow alternative pipeline option 1E as it relates to erf 41 is also not an option as it still compromises the use of a significant portion of the authorised area both in terms of its rezoning and in terms of its EA. RCL remains of the view that the yellow route could be more refined to align it more with the blue route. Option 1F as it appears in Figure 51 on page 130 does appear to be a compromise between option 1E and the blue route as proposed by RCL.</p> <p>15. This route appears to be acceptable to RCL.</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>The technical feasibility of the new routes suggested by RCL (black and blue lines) were technically assessed and they were not deemed to be viable for the following reasons:</p> <ul style="list-style-type: none"> An additional pipe-jack would be required at a road crossing, which would result in increased costs and additional approvals from KZN Department of Transport (DoT). Crossing an existing railway, where pipe jacking is not an option as there is insufficient space for a receiving pit on the eastern side of the railway crossing. Impractical to construct using open cut techniques due to the high cut embankments and the need to take the railway line out of operation during construction. Proximity to the National road (N3). A wayleave would be required; however, this is unlikely to be approved by SANRAL as the pipeline would be required to be benched into the N3 embankment, which could undermine the freeway layerworks construction and potentially lead to traffic hazard on the N3. There are also safety concerns during construction. Restricted working space: The narrow strip of land between the N3 and R103 would result in restricted working space, which presents a significant challenge for laying a large diameter pipeline. <p>A new route (Option 1F) was thus identified.</p>
552.	16. The executive summary states: "The EIA report provides an appraisal of all the environmental and technical considerations associated with the various alternatives through a comparative analysis to eventually distil the best practicable environmental option (BPEO)." Option 1 F is concluded to be the BPEO on pages 388 and 389 of the draft EIA Report.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>Route Option 1F aligned with RCL's favoured alternative. I&APs will be afforded the opportunity to object as part of the EIA process if another pipeline route option is authorised. However, if another route is approved, it will be contradictory to the findings of the EIA.</p>

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	17. RCL supports the recommendation of Option 1F over Erf 41 Portion 6 Umlaas Road as being the preferred option, and the best practicable environmental option, as is recorded at page 388 and 389 of the report It is recorded that RCL cannot accept any other alternative but option 1F as it relates to Erf 41 Portion 6 Umlaas Road.						
553.	<p>CONSTRUCTION AND OPERATIONAL ACTIVITIES AS IT AFFECTS THE REMAINING SITES</p> <p>18. According to the draft EIAR The following sites will be affected by the construction and operational activities associated with the pipeline. -Erf 1174 of Portion 20 Umlaas Poort -Erf 1174 of Portion 10 Umlaas Poort -Erf 881 of Portion 6 Hopewell -Erf 881 of Portion 43 Hopewell-Erf 30 Umlaas Road</p> <p>19. RCL requested certain amendments to the routes which appear to have been accommodated in the draft EIAR, in particular as it relates to erf 1174 Portion 20 of Umlaas Poort, Erf 881 of portion 43 Hopewell.</p> <p>20. The proposed pipeline passes between Erf 881 and Portion 6, Hopewell and Erf 881 Portion 43, Hopewell. It proceeds through a valley towards Farm 1174 Portion 10 Umlaas road. RCL records its concerns over the manner of construction proposed through the valley. Is the pipeline going to follow contours or be suspended? RCL records that it cannot tolerate blasting and that an alternate method of construction would have to be used in this area. This is to be confirmed and settled with RCL prior to the finalisation of the EMP and the construction programme.</p> <p>21. Further, RCL uses a common road over these two properties that link the five rearing farms. It is</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>The primary construction methodology is explained in Section 9.8.3 of the draft EIA Report.</p> <p>The following statements have been included in the EMPr (Pre-construction, Construction and Operational phases, as relevant):</p> <ul style="list-style-type: none"> • Establish specific requirements of RCL; • Confirm construction methodology to be adopted on all RCL properties; • Confirm access restrictions and requirements; • Confirm location of existing infrastructure and structures and identify suitable mitigation measures in consultation with RCL; • Requirements for sanitation facilities; • Temporary fencing between construction servitude and the chicken houses; • Seek to minimise impacts to existing farming operations on RCL properties; • Ensure compliance with RCL's biosecurity protocols in relation to the construction and maintenance of the pipeline on their properties; and • Confirm reinstatement and rehabilitation requirements. <p>Specific requirements stipulated by RCL can form part of servitude conditions, which need to be negotiated further with Umgeni Water.</p>

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	critical that the use of this road not be disrupted. RCL requires that the construction of the pipeline route that will pass under the road be timed during the clean out phase of the closest farm that will be the most affected, with the tie-in to the pipeline being done at a later stage. This is also to be confirmed and settled with RCL prior to the finalisation of the EMP and the construction programme.						
554.	22. RCL referred the applicant to Tongaat Hullett who is the lessee of Erf 881 Portion 6 Hopewell for comment. RCL reserves its rights in this regard on the assumption that the applicant has constructively engaged with Tongaat Hulett. Notwithstanding that Tongaat Hulett leases the land from RCL, RCL still operates the two farms that are conducted from that property.	A. Armstrong (Eversheds on behalf of RCL)				✓	Notification and details of pipeline route sent to Tina Hattingh and Donovan McLoughlin at Tongaat Hullett.
555.	23. Notwithstanding that the pipeline does not traverse Erf 1174 Portion 10 Umlaas Road, and is positioned on Portion 1 of Farm no 17536, as KP states at paragraph 1.1.3 on page 2 of its report at Annexure B, the proposed pipeline route is still close enough to RCL's farms to create unacceptable impacts during construction and operations which impacts must be mitigated and timed as detailed below. 24. RCL notes the amended route 1F as it relates to Erf 30 Umlaas Road. RCL records that where the route passes between the northern corner of its property Erf 30 Umlaas Road and that of Farm 885 Portion 114 there may be limited space to accommodate the pipeline and the construction servitude, as detailed at page 152 bullet 2 under "Advanced works" and as reflected in the photograph figure 11 on page 10 of Annexure B. It is recorded that there is a common drain within the vicinity of the proposed pipeline used for the washing of the houses that cannot be impacted upon. Further the pipeline cannot encroach closer to the uppermost broiler houses in the northern corner of the site, the proximity of the pipeline to the chicken houses	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 553 for provisions made in the EMP (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i>

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	already being extremely close as depicted in figure 6 and 11 of Annexure 6. This is also to be confirmed and settled with RCL prior to the finalisation of the EMP and the construction programme.						
556.	<p>25. The draft EIA is deficient in that it does not sufficiently acknowledge the role and position of the RCL facilities in the area and the impacts that may result to RCL and to SA's food security in the event that the impacts to RCL are not avoided or appropriately mitigated, as recorded above and below.</p> <p>26. All the farms both in KZN and across the country form part of a highly complex value chain where each component of the production line is reliant on each other -from the importation of pedigreed day old chicks from the UK to the final stage of slaughter and onward sale to retailers and restaurants, including KFC, Chicken Licken, Nando's, Woolworths, Spar and Pick n Pay.</p> <p>27. There are 8 rearing farms of 4 houses each (32 houses). There are 49 000 birds in each house. There are 4 laying farms with 6 houses each (24). There are 26 000 birds in each laying house. There is one broiler farm with 24 houses with 31 000 birds in each house. A disruption to any one of these components will result in a knock on effect amounting to the loss of millions of birds and the loss of food security to the country.</p> <p>28. If there is a even a 5% disruption to the farms, RCL will suffer direct losses of between R3 683 249,00 and R12 586 123,00. This does not take into account the multiplier effect on the value chain and on the losses in market share. This has the potential to run into millions. This calculation is also on the assumption that no blasting will take place.</p> <p>29. The summary of the impacts arising at page 39 does not correctly reflect the economic and social</p>	A. Armstrong (Eversheds on behalf of RCL)				<p>✓</p> <p>The draft EIA Report identifies the presence of chicken houses in the project area and attempts to mitigate related impacts, which includes the realignment of the pipeline route (with RCL's input) and measures included in the Impact Assessment (Section 12) and EMPr (see response to no. 463). The Agricultural Impact Assessment also considers the impacts to poultry farming.</p> <p>Additional information included in Section 12.8.1 of the final EIA Report, based on comments received, to emphasise the risk to RCL's poultry farming.</p>	

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	<p>impact on RCL if the construction and operational impacts are not avoided.</p> <p>30. Table 8 sets out the competent authority's specific requirements. It is noted at paragraph F that the impacts and effects of the development on the surrounding area must be identified. The impacts on RCL have not been recorded.</p> <p>31. Paragraph I states that a construction and operational phase EMPR must include mitigation and monitoring issues. The requirements of RCL recorded above, and below must be included.</p>						
557.	32. Further, paragraph J makes reference to blasting being required based on geotechnical conditions encountered. It is categorically stated that no blasting can take place on any farms owned by RCL or within 1 (one) kilometre of any of its poultry facilities. Alternative construction methods must be used.	A. Armstrong (Eversheds on behalf of RCL)				✓	The following statement has been included in the Construction EMPR: <i>No blasting is permitted on any farms owned by RCL or within 1 kilometre of any of its poultry facilities. Alternative construction methods must be used.</i>
558.	33. No spoil sites can be within the vicinity of any of the RCL chicken houses.	A. Armstrong (Eversheds on behalf of RCL)				✓	The following statement has been included in the Construction EMPR: <i>No spoil sites to be located within the vicinity of any of the RCL chicken houses.</i>
559.	34. Site Camp 2 Hopewell discussed at page 163 needs to be positioned in consultation with RCL.	A. Armstrong (Eversheds on behalf of RCL)				✓	Statement included in the final EIA Report as well as in the Pre-construction and Construction EMPRs.
560.	35. The summary of the socio economic impact assessment and the social impact assessment from pages 263 to 268 fails to acknowledge the economic and social contribution of RCL both in terms of its viability and in terms of its contribution to food security in South Africa. It fails to take cognisance of the employment of the 100 direct employees and the some 8000 employees employed around the country that are reliant on the success of the KZN facilities. This failure is repeated in the technical economic impact assessment at pages 273 to 279.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p><i>Refer to response to no. 556 with regards to potential impacts to RCL's poultry farming.</i></p> <p>Additional information included in Section 12.12.3 of the final EIA Report, based on comments received.</p>
561.	36. The summary of the traffic impact assessment should also note the sensitivity of the RCL farms during the construction phase.	A. Armstrong (Eversheds on behalf of RCL)				✓	Although traffic impacts to RCL is not specifically mentioned, impacts were assessed for the entire uMWP-1 footprint for the project's construction and operational phases. The mitigation measures provided will also serve to manage impacts in the areas affected.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<i>Refer to response to no. 553 for provisions made in the EMPr (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i>
562.	37. Table 50 from page 282 which identifies potential impact associated with key list of activities insufficiently notes the potential impacts to RCL.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p>Table 50 serves only to provide a broad overview of the potential impacts associated with the key listed activities in terms of the EIA Listing Notices. The impact assessment of specific environmental features commences in Section 12.2.</p> <p><i>Refer to response to no. 556 with regards to potential impacts to RCL's poultry farming.</i></p>
563.	38. The paragraph entitled "Issues raised by environmental authorities and I&AP's" at paragraph 12.1.3 from page 286 whilst it includes some of RCL's concerns, it does not note the real risk of disease and conditions that may impact on the sensitive well-being of the birds that must be controlled by strict biosecurity measures. Those measures are attached marked C1-3. Whilst biosecurity was raised in the meetings with the applicant there has been no further contact from the EAP in this regard in order to include it in the EIAR. This must be included as a condition of authorisation and included in the EMP. The details and operational logistics must be recorded in an agreement with RCL prior to construction, and must be binding on all contractors. The consequences of the failure of Biosecurity are recorded in the veterinarian report attached marked D.	A. Armstrong (Eversheds on behalf of RCL)				✓	<p><i>Refer to response to no. 546 with regards to biosecurity protocols.</i></p> <p><i>Refer to response to no. 553 for provisions made in the EMPr (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i></p> <p>Section 15.3 of the draft EIA Report provides key recommendation, which may also influence the conditions of the Environmental Authorisation (where relevant). The following recommendation is included: <i>Ensure compliance with RCL's biosecurity protocols in relation to the construction and maintenance of the pipeline on their properties.</i></p>
564.	39. In terms of table 51 and the pre-construction phase at page 289, it must be noted that negotiations and agreements with RCL must take place during the preconstruction phase. Significant attention is given to Baynesfield Trust whereas little attention has been given to RCL which requires the same attention.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 553 for provisions made in the EMPr (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i>
565.	40. Insofar as the project phase is concerned at table 52 on page 290 there can be no construction camps or storage of handling of material and fuel within the vicinity. It is reiterated that there can also be no blasting. An alternate means of laying the pipeline must be employed as opposed to blasting within at	A. Armstrong (Eversheds on behalf of RCL)				✓	<p><i>Refer to response to no. 553 for provisions made in the EMPr (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i></p> <p><i>Refer to response to no. 557 with regards to blasting.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	least 1 kilometres of any chicken house. The EMP in this regard must be settled in consultation with RCL.						<i>Refer to response to no. 559 with regards to site camp 2.</i>
566.	41. In terms of the operation phase at table 53 on page 291 application and the settling of the EMP must be had with RCL in terms of maintenance or any other activities that may be required in respect of the operation of the pipeline. No direct access can be had to RCL's properties and issues of bio-security must be adhered to.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 553 for provisions made in the EMP (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i>
567.	42. RCL's concerns are inadequately recorded at table 55 which relates to potential issues impacts within the construction phase and at table 56 which relates to those issues of the operation phase. As such, they are not discussed in the relevant paragraphs in the body of the EIA report.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to responses to no. 556 and 560 with regards to potential impacts to RCL's poultry farming.</i>
568.	43. RCL is not recorded in the ratings table at table 59 at page 316. There is no recognition of RCL in the discussion of the agricultural impact at paragraph 12.8 on page 326.	A. Armstrong (Eversheds on behalf of RCL)				✓	Table 59 relates to impacts associated with aquatic ecology. Additional information included in Section 12.8.1 of the final EIA Report, based on comments received, to emphasise the risk to RCL's poultry farming.
569.	44. Insufficient attention has been given to the impact of noise and vibrations on the poultry at RCL chicken facilities at paragraph 12.11 on page 340.	A. Armstrong (Eversheds on behalf of RCL)				✓	The EIA Report and Pre-construction EMP make provision for a noise and vibration monitoring programme, where the locations of the sampling sites need to take into consideration significant sources of noise as well as sensitive receptors (includes chicken houses situated alongside the pipeline route).
570.	45. The construction of the pipelines within the vicinity of RCL chicken houses must be timed during the 3-4 washing period – the only time during the year that the chicken houses may be empty.	A. Armstrong (Eversheds on behalf of RCL)				✓	Umgeni Water and the Contractor to discuss the timing of construction activities with RCL
571.	46. The RCL's requirements detailed above must be included as conditions of the environmental authorisation (EA) if granted, and in the Environmental Management programme (EMP). Further specific RCL conditions are recorded below.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 553 for provisions made in the EMP (Pre-construction, Construction and Operational phases) to address RCL's concerns.</i> Section 15.3 of the draft EIA Report provides key recommendation, which may also influence the conditions of the Environmental Authorisation (where relevant). The following recommendation is included: <i>Ensure compliance with RCL's biosecurity protocols in relation to the construction and maintenance of the pipeline on their properties.</i>
572.	RCL MANDATORY REQUIREMENTS FOR EA AND EMP CONDITIONS	A. Armstrong (Eversheds on				✓	<i>Refer to response to no. 553 for provisions made in the EMP (Pre-construction, Construction and Operational phases) to</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>47. Besides above, the following are mandatory conditions upon which RCL may accept the construction and operation of the proposed pipeline within the vicinity of its chicken houses:</p> <p>47.1. Compliance with all biosecurity protocol to be agreed upon in consultation with RCL and in accordance with annexures C.</p> <p>47.2. No blasting within 1 km of a chicken house;</p> <p>47.3. Dust suppression by water or enclosure of hoses;</p> <p>47.4. Temporary fencing between construction of the pipeline and the chicken houses</p> <p>47.5. No construction camps within the vicinity of chicken houses (500m)</p> <p>47.6. No ablutions</p> <p>47.7. No waste sites</p> <p>47.8. No stockpiles or spoil sites</p> <p>47.9. No prevention of access or interruption of delivery trucks to and from the chicken farms</p> <p>47.10. No interruption to RCL's waterline</p> <p>47.11. No interruption RCL's borehole accessibility</p> <p>47.12. No storage or handling of hazardous fuel or goods</p> <p>47.13. No noise from vehicles or construction</p> <p>47.14. No disruption to access and egress of RCL facilities and to the delivery and transportation of chicks and eggs.</p> <p>47.15. Construction of the pipelines and pass ways under roads on RCL farms must be timed to be carried out during RCL's house cleaning periods</p> <p>47.16. Rehabilitation of property must be done immediately after construction.</p>	behalf of RCL)					<p><i>address RCL's concerns.</i></p> <p><i>Refer to response to no. 557 with regards to blasting.</i></p> <p><i>Refer to response to no. 558 with regards to spoil sites.</i></p> <p><i>Refer to response to no. 559 with regards to site camp 2.</i></p> <p>Provision made in the EMPr (Pre-construction, Construction and Operational phases, as relevant) for dust management, waste management and rehabilitation.</p> <p>Additional statements included in the Construction EMPr:</p> <ul style="list-style-type: none"> • No storage areas for hazardous materials may be located in the vicinity of RCL's chicken houses. Exact buffer to be established in consultation with RCL; • No ablution facilities may be placed in the vicinity of RCL's chicken houses. Exact buffer to be established in consultation with RCL; • No interruptions to RCL's waterline and borehole accessibility; • Establish noise thresholds for chicken houses in consultation with RCL. Ensure noise levels from construction activities do not exceed these thresholds; and • No disruption to access and egress of RCL facilities and to the delivery and transportation of chicks and eggs.
573.	<p>CONCLUSION</p> <p>48. The draft EIAR needs to be amended prior to being submitted as final in order to incorporate the RCL requirements relating to Option 1 F over Erf 41 Portion 6 of Umlaas Road, and to remove reference</p>	A. Armstrong (Eversheds on behalf of RCL)				✓	<p><i>Refer to response to no. 549 with regards to route Options 1 and 1F.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	to Option 1.						
574.	49. The draft EIAR needs to be amended prior to being submitted as final in order to incorporate the RCL requirements relating to the remaining sites that will be affected by the construction and the operation of the pipeline project.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to response to no. 572 with regards to the manner in which RCL's requirements are addressed in the EIA Report and EMPr.</i>
575.	50. The draft EIAR needs to be amended prior to being submitted as final in order to incorporate the significant financial and social contribution RCL is making to the economy. The final EIA needs to record the significant loss to RCL, the economy in general, to food security and the social fabric that will result due to any disruption to the RCL facilities and value chain, should the impacts not be avoided (such as blasting) and the mitigation measures not be implemented.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to responses to no. 556 and 560 with regards to potential impacts to RCL's poultry farming.</i>
576.	51. The conditions contained above need to be incorporated into the recommendations contained at page 404 of the draft EIAR.	A. Armstrong (Eversheds on behalf of RCL)				✓	Conditions under comment no. 47 in letter were included in Section 15.3 of the final EIA Report as commendations which may also influence the conditions of the Environmental Authorisation.
577.	52. The final EIAR was amended above needs to be provided to RCL prior to authorisation.	A. Armstrong (Eversheds on behalf of RCL)				✓	RCL to be notified when the final EIA Report will be available and the manner in which the document can be accessed.
578.	53. The conditions contained in this document, including the biosecurity protocols, need to be incorporated into the EA as conditions of authorisation, as well as incorporated into the EMP. 54. All conditions and biosecurity protocols re binding on all contractors.	A. Armstrong (Eversheds on behalf of RCL)				✓	<i>Refer to responses to no. 546 and 563 with regards to biosecurity controls.</i>
579.	55. RCL needs to be consulted in order to refine and formalise the above prior to construction taking place.	A. Armstrong (Eversheds on behalf of RCL)				✓	Section 15.8 of the Pre-construction EMPr states that a meeting needs to be convened with RCL to discuss (amongst others): <ul style="list-style-type: none"> • Establish specific requirements of RCL; • Confirm construction methodology to be adopted on all RCL properties; • Confirm access roads to be utilised; • Confirm location of existing infrastructure and structures and identify suitable mitigation measures in consultation with RCL; • Temporary fencing between construction servitude and the chicken houses; • Requirements for sanitation facilities;

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<ul style="list-style-type: none"> Seek to minimise impacts to existing farming operations on RCL properties; and Ensure compliance with RCL's biosecurity protocols in relation to the construction and maintenance of the pipeline on their properties.
Source: Correspondence (Letter) – 18 August 2016							
580.	<p>1. We refer to our letter dated 12 August 2016 containing RCL Consumer Food (Pty) Ltd's responses to the potable water component of the Umkhomazi Water Pipeline project.</p> <p>2. Please accept this letter as a supplement thereto, specifically as it applies to Erf 41, Portion 6 Umlaas Road (Erf 41). Apologies for the late submission of this but it is relevant to RCL's access to Erf 41. RCL wishes to record and bring to the attention of the Applicant that access to Erf 41 would be via the R103 and approximately at point 5 in the attached diagram. Access would have to be via a servitude over the pipeline as is depicted in Option 1F in the draft EIA report, where it traverses Erf 41.</p> <p>3. Kindly be advised that this would be a necessary requirement of RCL in order for it or any subsequent successors-in-title to gain access to the site.</p> <p>4. We look forward to hearing your response in this regard.</p> <p><i>Map attached to letter.</i></p>	A. Armstrong (Eversheds on behalf of RCL)				✓	This would be acceptable. The pipeline underneath any such access would be concrete encased or constructed within a sleeve to protect it from vehicle loading above the pipe.
Source: Meeting on Trewirgie Farm – 18 August 2016							
581.	C Seele expressed concern over the servitude restrictions with regards to the tunnel and stated that it would not be acceptable if the land was acquired.		✓				<p>D Henning indicated that the section in the EIA Report that discusses the tunnel servitude needed to be elaborated on.</p> <p><i>Refer to response for no. 592 regarding the tunnel servitude.</i></p>
Source: Blue Swallows Working Group Meeting – 12 September 2016							
582.	B Seele stated that the first time that they had heard of geotechnical investigations were during a recent meeting with members of the project team.	B. Seele		✓			D Henning indicated that reference to geotechnical investigations is made throughout the EIA Report and specific provision is made in the EMPr to manage related environmental impacts. He noted that the risks posed by the geotechnical investigations to Blue Swallows required additional attention, which needed to be

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							addressed as part of the proposed mitigation strategy.

6.9 Existing Infrastructure

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Email) – 06 July 2016							
583.	SANRAL is not affected by this application.	J. Marx (SANRAL)	✓	✓	✓	✓	Noted. Existing infrastructure to be potentially affected by the project was assessed in the Raw and EIA Report.

6.10 Traffic, Road Network & Access

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
584.	M van Deventer noted problems with the use of the existing access road, which included the condition of the road, difficult sections, and tight turning circles. He also indicated that this road is used by vehicles as part of current farming and forestry operations.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	D Henning indicated that the tarring of the access road was suggested in the EIA Report (uMWP-1 Raw Water), as well as the selective upgrading of the access road as part of the project. He stated that this would receive additional attention during the design phase. <i>A meeting was held with M. van Deventer on 18 August 2016 to discuss arrangements for access.</i>
585.	P Odell asked how timber trucks would be accommodated during the construction phase, and he noted that the bridge over the dam wall (Mbangweni Dam) provides access to the NCT timber plantation.	P Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	D Henning indicated that the Environmental Management Programme provides mitigation measures in this regard. <i>A meeting was held with M. van Deventer on 18 August 2016 to discuss arrangements for access.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	M van Deventer emphasised the need to consider the safety of the dam wall if the bridge is to be used.						
Source: Meeting with KwaZashuke Traditional Council and Community (KwaZashuke Traditional Council Hall) – 16 July 2016							
586.	Unknown attendee asked about the impact to existing access roads.	<i>Unknown attendee</i>	✓				D Henning explained that provision had been made to relocate all roads that will be affected by the proposed dam.
Source: Correspondence (Email) – 14 August 2016							
587.	<p><i>Linked to no. 353.</i></p> <p>3) The preferred road route to the balancing dam is problematic. Firstly it goes across our dam wall which raises maintenance and safety concerns. Secondly the route passes directly behind our lodge which will inconvenience our guests and have financial consequences. I have mentioned that there is a route to cross the river upstream of our dam and this is our preferred option.</p>	M. van Deventer (Baynesfield Estate)		✓	✓	✓	<p>The following was decided during a meeting held with M van Deventer on 18 August 2016:</p> <ul style="list-style-type: none"> • The access road to the tunnel outlet and balancing dam shall not cross over the dam wall of the Mbangweni Dam. • Option 1 of the access road to the tunnel outlet and the Balancing Dam is preferred if the following conditions are met (referred to attached map) – <ul style="list-style-type: none"> ○ Access road to be tarred from the P334 until the tunnel outlet; ○ Provision shall be made for traffic associated with normal farming and forestry activities. The following measures need to be in place in this regard – <ul style="list-style-type: none"> ▪ The exiting access road on the eastern side of the Mbangweni River up to P334 will be upgraded (as necessary) to allow for movement of vehicles from Baynesfield Estate, NCT Forestry, landowners and tenants. No construction vehicles will be permitted to use this road, apart from the sections along the raw water pipeline (link to the Balancing Dam and WTW). Right of way to be established by DWS to allow for the use of this road; ▪ Provision needs to be made for the suitable and safe use of all roads that need to accommodate vehicles associated with construction, farming and forestry activities, as well as private landowners and tenants; and ○ The section along the access road that passes the avocado orchards needs to be fenced off to prevent access.

6.11 Agriculture and Forestry

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
588.	P Odell indicated that it is not possible to obtain additional land for forestry within the catchment.	P. Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	D Henning stated that the EIA Report (uMWP-1 Potable Water) recommends that concession is sought through DWS, as the proponent for uMWP-1 Raw Water, to increase permissible timber production in the uMlaza River catchment.
589.	P Odell noted that with reference to the presentation on the Agricultural Impact Assessment, the timber at WTW Option 1 is not pine but wattle which is a higher value crop.	P. Odell (NCT Tree Farming (Pty) Ltd)				✓	<i>Presentation to be corrected.</i>
Source: Meeting with KwaBhidla Traditional Council and Community (KwaBhidla Traditional Council Hall) – 15 July 2016							
590.	M Dlamini noted that forestry plantations contribute towards reduced water levels.	M. Dlamini	✓				<i>This was factored in as part of the Technical Feasibility Study.</i>
Source: Correspondence (Email) – 15 July 2016							
591.	<p>As mentioned in previous correspondence NCT will be losing a fair amount of timber area (Indications are +- 22ha, excluding buffer zones and road upgrades and excluding the Langa dam area) As you are aware the catchment that we utilize for our timber plantations is closed to further planting or expansion as per DWAF. The availability of suitable land for this purpose, even if DWAF approved land substitution, is extremely limited if not unavailable!</p> <p>NCT in this case is taking a double knock with the loss of timber land. An alternative site for the Langa dam may be a challenging ask, however the water treatment works has at least 2 other alternative options. Option 2 (adjacent to R56) is made up mainly of non-productive land and from this angle, as NCT and the for Land owners is a far better option. Why remove productive agricultural land forever?</p> <p>Serious consideration needs to be given to the loss of timber area to this project and any loss of productive land must be minimized.</p>	P. Odell (NCT Tree Farming (Pty) Ltd)		✓	✓	✓	<p>NCT Forestry Co-operative Limited suggested alternative sites for the proposed WTW in order to prevent any impacts to the timber plantation. These suggested sites were assessed. <i>Refer to response to no. 78 regarding feedback from the engineering team.</i></p> <p>The EIA Report provides an appraisal of all the environmental and technical considerations associated with the various alternatives through a comparative analysis to eventually distil the Best Practicable Environmental Option (BPEO).</p> <p>Based on the recommendations of the specialists, technical considerations, comparison of the impacts and feedback from Baynesfield Estate, the Langa Balancing Dam and the WTW Option 1 were identified as the BPEOs for the related project components.</p> <p>The uMWP-1 Potable Water EIA Report recommends that concession is sought through DWS, as the proponent for uMWP-1 Raw Water, to increase permissible timber production in the uMlaza River catchment that will ensure no nett loss.</p> <p><i>Refer to response to no. 587 access arrangements.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>During the construction phase of the Langa dam, NCT will be harvesting timber in the area. The proposed dam wall is directly on the road we use for access. This will lead to increased traffic and possible chaos as the access route proposed for the project is the same route we use to transport timber – please ensure this will be covered in the road and traffic management plan.</p> <p>I trust you find these concerns real and appropriate action and plans can be worked out.</p>						
Source: Correspondence (Email) – 14 August 2016							
592.	Will the servitude for the deep tunnel be as per the rest of the pipeline? i.e. there will be no agricultural activity allowed within the servitude?	L. Seele		✓			<p>The main reason for the tunnel servitude will be to prevent people from drilling boreholes into the tunnel and using water illegally.</p> <p>Section 128 of the National Water Act (Act No. 36 of 1998), which pertains to the rights and duties of servitude holders and landowners, will apply.</p> <p>The following general conditions will apply to the servitude:</p> <ul style="list-style-type: none"> • The servitude will not be fenced; • No boreholes or shafts of any nature may be sunk within the servitude area; • No explosives may be used within the servitude area; • No boreholes or quarries of any nature may be developed within the servitude area; and • No permanent structures or buildings may be erected within the servitude area. <p>However, tunnel servitudes will be dealt with on a case by case basis. It will be possible to amend the tunnel servitude according to specific requirements. If the tunnel is very deep and there are no shafts the DWS will not require access. It might even be possible for farmers to plant trees and construct infrastructure (for example houses) within the tunnel servitude.</p>
Source: Correspondence (Email) – 24 August 2016							
593.	The relevant authorities responsible for the issuing, monitoring and the controlling of timber planting	P. Odell (NCT Tree Farming		✓	✓	✓	<i>Refer to response to no. 591.</i>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	permits, must be notified of the proposed project and must be able to compensate the loss of timber area with alternative area in the catchment. It would be fair to ask that before this project commences, that alternative sites for timber establishment to compensate for the loss of timber area be identified and approval given to plant timber in these areas.	(Pty) Ltd)					

6.12 Socio-Economic Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Amaqadi Traditional Council & Community (Ncwadi Primary School) – 13 July 2016							
594.	Councillor Kunene noted that the community appreciates the project. He also indicated that there could be investment opportunities associated with the project.	Councillor Kunene	✓	✓			<i>Could be explored through RMP process for dam.</i>
595.	Councillor Kunene asked about the employment opportunities that would be created.	Councillor Kunene	✓	✓			K Bester noted that it would be a 5-year construction period and at the peak of construction there would be approximately 1000 construction workers. K Naidoo explained that various targets would be set in the contract with the contractor, which would include: <ul style="list-style-type: none"> • 100% of unskilled labour to be sourced from the local area; • Preference to be afforded to black woman owned businesses; and • Training requirements (skills development).
596.	M Ngcobo asked about the impacts to the community associated with the tunnelling exercise.	M. Ngcobo		✓			K Bester explained that impacts would be minimal due to the depth of the tunnel. He further noted that the tunnel will be lined and that noise should only be heard at the tunnel inlet and outlet, as well as at the adits.
Source: Meeting with Amaqadi Traditional Council & Community (Deepdale) – 13 July 2016							
597.	DM Dlamini raised a concern with regards to the impacts that could be caused to the community as a	DM Dlamini		✓			K Bester indicated that apart from the inlet, central and outlet portals as well as the shafts for ventilation purposes, the tunnel

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	result of the tunnelling exercise.						runs below ground. He noted that a pre-construction survey would be undertaken of the houses in the area.
598.	C Sokhela stated that it would be unfair for a person who stays in the area where the dam is to be built and then leaves to reside in Durban to pay higher water tariffs related to uMWP-1.	C. Sokhela	✓	✓	✓	✓	K Bester explained the high costs associated with the project as well as the implications in terms of water tariffs in the areas to be supplied by the transfer scheme.
599.	DM Dlamini expressed concern over possible loss of land for those people that need to be relocated due to the dam.	DM Dlamini	✓				K Naidoo explained that the principle that will apply is that the people to be relocated will not be worse off following resettlement. She noted that the relocation process will need to satisfy the requirements that apply in the case of land under Traditional Authorities.
Source: Meeting at Baynesfield Club – 14 July 2016							
600.	M van Deventer noted the impacts to the Baynesfield Lodge as a result of the construction activities.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	D Henning indicated that the EIA Report (uMWP-1 Raw Water) states that in order to mitigate impacts to the Baynesfield Estate Lodge during the construction phase it is recommended that this facility be recreated at Baynesfield Dam. He further noted that the existing Baynesfield Lodge could be leased out to the construction team and then reinstated (as necessary) after the construction period for continued future use by the estate.
601.	M van Deventer indicated that the Baynesfield Trust includes a condition that the land cannot be sold.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	K Naidoo noted that this is a legal matter that will be adequately attended to as part of the land acquisition process, which will take into consideration individual circumstances.
602.	M van Deventer enquired about compensation.	M. van Deventer (Baynesfield Estate)		✓	✓	✓	K Naidoo indicated that the findings from the EIA are only the first phase of understanding compensation. She explained that determining compensation requires more detailed assessments, which would include engagement with the affected landowners.
603.	M van Deventer asked which WTW site was identified as the preferred option in the Social Impact Assessment.	M. van Deventer (Baynesfield Estate)				✓	N Bews noted that WTW Option 2 had been identified as the preferred option in the Social Impact Assessment due to economic factors.
604.	Unknown attendee asked about impacts to farm occupants and their livelihoods.	<i>Unknown attendee</i>	✓	✓	✓	✓	K Naidoo explained that all legal requirements in terms of the land acquisition process need to be satisfied. She further explained how this matter was attended to in the case of Spring Grove Dam.
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
605.	F Peters emphasised that compensation needed to consider rootstock and planting practices.	F. Peters				✓	G Subramanian noted that compensation will include the loss of crops.
606.	F Peters emphasised that Umgeni Water and landowners need to negotiate in good faith. He noted that expropriation has negative connotations.	F. Peters				✓	D Henning indicated that land acquisition is a separate legal process to the EIA, which would be undertaken by Umgeni Water on the potable water pipeline.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							G Subramanian stated that Umgeni Water will be reasonable and that the organisation has a history of good practice. K Naidoo explained that although the expropriation process is used, in accordance with the associated legislation, it is a fair process and considers current market value.
607.	B Crookes noted that his property value has decreased due to industrial development and other linear infrastructure that already traverses his property.	B. Crookes				✓	<i>Additional route options for the potable water pipeline were assessed following a site visit with certain landowners (including B. Crookes and K. Chamblor) on 22 September 2016. Following an evaluation of these routes it was decided to accommodate a deviation to the alignment in the western section of the project area, with the addition of route Option 1AA. Due to various factors the route deviation in the eastern section was not considered more preferable to the current alignment and was thus not assessed further.</i>
608.	B Crookes requested further clarification with regards to compensation in terms of crops. He explained the process associated with planting and harvesting sugarcane. He also emphasised that the age of the sugarcane needed to be taken into consideration.	B. Crookes				✓	<i>These matters need to be considered further as part of the separate legal process associated with land acquisition.</i>
609.	H Mbatha stated that no construction work will be undertaken on this land without proper compensation. He stated that Eskom had reneged on agreements in the past and that this approach would thus not be acceptable.	H. Mbatha				✓	G Subramanian noted that Umgeni Water prefers to pay compensation after construction; however, an agreement will be in place with the landowner beforehand.
Source: Correspondence (Email) – 14 July 2016							
610.	At our meeting today I represented The Mbatha Family trust 2. I also understand it so that no implementation will take place before I am compensated. 4. That I will be treated as an individual entity when negotiation begin on compensation.	H. Mbatha				✓	<i>Refer to response to no. 88 regarding compensation.</i>
Source: Meeting with KwaBhidla Traditional Council and Community (KwaBhidla Traditional Council Hall) – 15 July 2016							
611.	S Ngubane enquired about small business development and skills development.	S. Ngubane	✓	✓			K Naidoo indicated that targets would be set for the contractor in terms of skills development. She also noted that training programmes would be implemented and that support would be given to local small businesses.

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612.	V Sibiya asked where the affected community members will be moved to.	V. Sibiya	✓				K Naidoo explained that people will not be relocated to an area where they don't want to be. She indicated that thorough negotiations would be undertaken with the relevant parties as part of the relocation process.
613.	P Maharaj alleged that the project team is secretly meeting with people and that Land Affairs is unaware of the project.	P. Maharaj	✓				<i>A full account of the public participation process is provided in the EIA Report, including minutes of meetings, list of authorities and I&APs engaged with, forms of communication, etc. A Project Steering Committee, which includes various government departments (national, provincial and local), was also established for the project and various PSC meetings have been convened.</i>
Source: Meeting with Impendle Tenant Community (Soccer Field) – 15 July 2016							
614.	I Gumede asked what will happen to graves if family members are relocated.	I. Gumede	✓				K Naidoo explained that graves will be moved to the municipal cemetery.
615.	P Maharaj alleged that DWS is trying to rob the people and that the Ingonyama Trust and Land Affairs are unaware of the project.	P. Maharaj	✓				K Bester stated that wide consultation had been undertaken to notify the various Government Departments about the project, which included a Project Steering Committee that is made up of representatives of various spheres of government. D Henning indicated that a database of Interested and Affected Parties had been created as part of the EIA and that all these parties had been notified of the project and had been offered an opportunity to comment on the Scoping and EIA Reports. He further noted that this database included representatives from the Department of Rural Development and Land Reform (DRD&LR) as well as the Ingonyama Trust Board. K Naidoo noted that the project has a responsibility to check if there are any land claims and if there are valid claims then these will have to be compensated.
616.	Mr Madladla stated that no one had been delegated to speak on behalf of the Impendle Tenant Forum.	Mr Madladla	✓				Noted and understood.
617.	N Sithole expressed concerns with regards to the proposed dam in terms of relocation of roads and the loss of grazing area for livestock.	N. Sithole	✓				D Henning explained that provision had been made to relocate roads that will be affected by the proposed Smithfield Dam. He noted that an agreement could be entered into between the community and DWS for livestock to be able to drink water from the dam.
Source: Correspondence (Letter) – 15 July 2016							
618.	Letter of complaints from the community led by traditional leaders from the Bhidla Traditional Council,	P. Maharaj	✓				Note that this letter was received from Mr P Maharaj, who is a member of the local community, in his individual capacity during a

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	and Zashuke Traditional Council which are under the Ngonyama trust, and the community which falls under Land Affairs. The following farms: Smith Field Farm, Valley view Farm, Clemont Farm, Kraal Farm, Deep dale Farm (lot93 of182l), Camden Farm and Clay born Farm.						meeting held on 15 July 2016 with the KwaBhidla Traditional Council and Community.
619.	1. The reason why they do not accept the dam is that it will obstruct with the land used for farming and grazing.	P. Maharaj	✓				<p>The grazing capacity, according to the National Department of Agriculture, is 3 hectare per large livestock unit (LSU). This was adapted as part of the Agricultural Impact Assessment after a grazing evaluation during the site visit at the proposed Smithfield Dam basin. It was estimated that the grazing capacity is more than 6 ha per LSU on the eastern section and on eroded parts.</p> <p>The overall agricultural impact at Smithfield Dam was determined to be as follows:</p> <ul style="list-style-type: none"> • Loss of 228 hectare high potential arable land - high (irreplaceable) significance on local community; and • Loss of 177 LSU grazing land - high (irreplaceable) significance on local community. <p>The RAP must consider the current use and rights to use land within the basin, including grazing and agriculture, and identify suitable mitigation measures.</p>
620.	2. Graves - the exhuming of graves is not allowed in our culture \ interfering with graves.	P. Maharaj	✓				<p>Mitigation measures included in the EMPr for graves include:</p> <ul style="list-style-type: none"> • A Phase 2 Heritage Impact Assessment (HIA), Archaeological Impact Assessment (AIA) and Paleontological Impact Assessment (PIA) will also be conducted during the pre-construction phase. • Conduct environmental sensitivity walk down survey of entire project footprint prior to construction. Survey team to include a Heritage specialist. • Search, rescue and relocation for heritage resources and graves. This is to be implemented taking into consideration the project programme to ensure that these sensitive environmental features are rescued prior to potential impact occurrence. Amafa aKwaZulu-Natali is to be consulted to ensure that their requirements are satisfied. • Seek permit from Amafa aKwaZulu-Natali in terms of the KZN Heritage Act (No. 04 of 2008) if heritage resources are to be impacted on (relocated or destroyed), and for the removal of graves.

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			Smithfield Dam	Tunnel	Balancing Dam		
							<ul style="list-style-type: none"> • Suitably experienced personnel (relevant to the potentially affected environmental features) are to monitor the clearing activities, with particular focus on heritage resources and graves (amongst others). • Exhumation and relocation of graves once families and affected communities have been consulted and permission received for relocation. All cultural practices in terms of removal of graves as requested by family / community to be complied with. • All homesteads and graves situated in close proximity to the construction areas to be protected by a 20m buffer in which no construction can take place. The buffer to be highly visible to construction crews. • Existing communication channels need to be duly respected and adhered to when engaging with the Traditional Authorities surrounding Smithfield Dam. • Relocation Action Plan (RAP) for Smithfield Dam, which needs to make provision for the following (amongst others) – <ul style="list-style-type: none"> ○ Build on the Relocation Framework Plan; ○ Incorporate findings of the Socio-economic Survey; ○ Incorporate mitigation measures included in the Social Impact Assessment and Socio-Economic Impact Assessment; ○ Satisfy the requirements of the Ingonyama Trust Board, Traditional Authorities, Department of Cooperative Governance and Traditional Affairs (COGTA), Harry Gwala DM and Ingwe LM; <p>A Heritage Management Plan is also included as Appendix A to the EMP, which also considers graves.</p>
621.	<p>3. Movement of houses and roads which ends up escalating transport fees for the poor.</p> <p>5. Disturbing school children.</p> <p>6. Risks on people who will travel to secure transport.</p>	P. Maharaj	✓				<p>Refer to response for no. 620 regarding resettlement of houses at Smithfield Dam.</p> <p>The EIA states the following:</p> <ul style="list-style-type: none"> • Ensure that where communities' access is obstructed, such as due to the road deviations, that this access is restored to an acceptable state. In respect of the 16 km addition for the Nonguqa Community it may be necessary to consider the construction of a pedestrian bridge. The solution would, however, need to be found through consultations with the affected community. This matter needs to be explored further

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							as part of the detailed design. The relevant approvals will need to be sought, as relevant.
622.	4. It will not benefit the neighbouring community in any way.	P. Maharaj	✓				<p>As part of the feasibility study for the proposed Smithfield Dam, a desktop-level study was carried out to ascertain the following:</p> <ul style="list-style-type: none"> • The current water sources being used by the communities surrounding the dam; and • The possibility of feasibly supplying these communities from Smithfield Dam in the future. <p>Note that a separate EIA will be conducted for the Smithfield Dam local water supply scheme.</p> <p>Benefits will accrue to the local community during the construction phase; however, the project will mostly require skilled labour.</p> <p>The Economic Impact Assessment (Appendix H10) reviews the locality, the drivers of water resource demand in the catchment areas and provides an overview of the anticipated impacts of the total development. Emphasis is placed on understanding both the costs of the establishment of the scheme, as well as the long term benefits within an economic cost-benefit framework that reviews the opportunity costs associated with the proposed scheme. Refer to further related discussions in Section 12.22 of the draft EIA Report.</p>
623.	<p>7. Honourable Minister Gugile Nkwinti promised residents from farm who had applied for land that they will never be removed from the farms until their applications are successful. These residents from the farms listed above applied for the restitution of their land.</p> <p><i>Attached list of "sites of people who are negatively affected, or aggrieved" to the letter.</i></p>	P. Maharaj	✓				<p>The EIA Report includes information regarding land claims, as documented in the Socio-Economic Impact Assessment.</p> <p>There are a large number of gazetted land claims on the properties affected by the uMWP-1 Raw Water infrastructure (shown in Table 76 and Figure 200). Each of the land claims form part of a broader claim per claimant. The DRD&LR, through the Land Claims Commission, may still have to carry out further investigations to satisfy the validity of the claims.</p>
Source: Meeting with KwaZashuke Traditional Council and Community (KwaZashuke Traditional Council Hall) – 16 July 2016							
624.	<p>D Basi raised the following concerns with regards to the proposed dam:</p> <ul style="list-style-type: none"> • Reduction in grazing area; • Loss of cultivated land that forms part of the initiative by the Department of Rural Development and Land Reform; 	D. Basi	✓				<p>K Bester explained that the proposed location of the dam was identified to be the most suitable site based on various factors. He stated that no problems had been encountered on any other DWS dam sites with regards to the "white bull"; however, the fears of the community in this regard need to be recognised and a suitable solution needs to be identified in consultation with the community.</p>

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	<ul style="list-style-type: none"> Impacts to graves, which cannot be relocated; A "white bull" resides in the river; Increase in travelling distances due to the relocation of roads; Loss of bridge over the Luhane River; and There are other areas where the water required for the scheme can be obtained from. 						<p>He indicated that the EIA had assessed the impacts associated with the matters raised by D Basi. He noted that the project must ensure that the livelihoods of the affected community are maintained.</p> <p>D Henning indicated that research had been undertaken as part of the EIA in terms of cultural beliefs related to water spirits. He noted that mitigation measures need to be identified through engagement with the Traditional Authorities as well as spiritual and traditional healers. He further stated that the Agricultural Impact Assessment had identified grazing areas that will be lost as a result of the dam. He noted that areas that had been degraded due to erosion could be rehabilitated to offset the loss of grazing land.</p> <p>J Nyakale mentioned that an option would be to encase graves in concrete.</p>
625.	B Dlamini stated that the dam would not benefit him directly and that he is opposed to the project. He also expressed concern over the impacts to graves.	B. Dlamini	✓				<p><i>The strategic nature of the project needs to be taken into consideration. Specific mitigation measures for the communities surrounding the proposed Smithfield Dam are included in the EIA Report and EMP.</i></p> <p><i>Refer to response for no. 620 regarding graves.</i></p>
626.	Unknown attendee asked whether individuals or the Traditional Authority would be compensated.	<i>Unknown attendee</i>	✓				<p>K Naidoo explained the relocation of affected dwellings and graves, where the directly affected parties needed to be compensated.</p>
627.	<p>T Ndlela raised the following concerns with regards to the proposed dam:</p> <ul style="list-style-type: none"> Impacts to graves (believed to be 102 graves in total), which cannot be exhumed as it will insult the ancestors; Impacts to livestock in terms of loss of grazing land; and Water scarcity and the influence to the community. 	T. Ndlela	✓				<p>K Bester noted that K Naidoo's presentation explained the process that had been adopted to deal with the relocation of graves and dwellings in the case of Spring Grove Dam. He stressed that the people affected by the proposed Smithfield Dam needed to be engaged with. He also indicated that the EIA Comments and Responses Report will capture all the issues raised by the community and responses will be provided.</p> <p><i>Refer to response for no. 620 regarding graves.</i></p>
628.	Mr Ngcobo expressed his concern with regards to impacts to graves and further noted that the locations of some graves are unknown.	Mr Ngcobo	✓				<p><i>Refer to response for no. 620 regarding graves.</i></p>
629.	D Ngubane indicated that desalinisation needed to be considered as an option. He also stated that alien plants need to be managed, which will increase the	D. Ngubane	✓				<p>D Henning explained that various options to meeting the objectives of the overall project had been considered, which included desalinisation. He also noted that community</p>

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	volume of water available. He emphasised that the community needed to benefit. He further indicated that the affected members of the community needed to be consulted.						beneficiation could be promoted through the future Resource Management Plan for the dam.
Source: Correspondence (completed Comment Sheet) – 12 August 2016							
630.	<i>Linked to no. 377.</i> 7. Comment on the effect of servitude In addition to negative effects on the conservation of pristine mist-belt grassland and forest, as a land owner, I feel that my safety will be at risk through the presence of a servitude by increased ease of access to and knowledge about Trewirgie Farm and through on-going monitoring actions that will take place in the future.	B. Seele		✓			<i>Refer to response for no. 592 regarding the tunnel servitude.</i>
Source: Correspondence (Letter) – 15 August 2016							
631.	<i>Translated from isiZulu</i> COMPLAINTS FROM THE COMMUNITY ABOUT THE BUILDING OF A DAM, IN THE FOLLOWING AREAS <ul style="list-style-type: none"> In the Zashuke area at Nonguqa which is under the Ngonyama Trust. Kwabhidla at the district of Sheshi which is also under the Ngonyama Trust. REASONS Loss of farms. We had asked the Government (Agriculture) who agreed to work with us if we formed a co-op which we speedily formed in 2013. The Department came to prepare the soil. We are still waiting for the Government to provide a fence and to prepare our land for ploughing. As food is expensive we want to be small-scale farmers like people from other areas who farm and send food to markets.	Mr Basi	✓				The status of the land where agricultural activities take place within the proposed Smithfield Dam basin is explained in the Socio-economic Impact Assessment Report. No formal agreement between the community and the Department of Rural Development and Land Reform could be found in terms of this land. As the project is only at a feasibility stage, a Relocation Framework Plan was developed to inform the EIA. Detailed social consultation with the affected communities will take place during the Implementation Phase of the project when a Relocation Action Plan (RAP) will be developed. The RAP will include arrangements for resettling and compensating each household which has to be relocated as a consequence of acquiring land for the proposed project. This will include compensation for standing crops (amongst others).
632.	GRAZING LAND Our stock grazes on this land. During times of food shortages livestock cross over to the other side of the uMkhomazi River for grazing. White people moved	Mr Basi	✓				<i>Refer to response for no. 619 regarding loss of grazing land.</i>

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	away from the farms and the farms were returned to people who live nearby. Grazing land will be lost with the building of the dam. We do not know where livestock will cross to reach the other side of the dam, and this will lead to the loss of livestock which we depend on for our survival.						
633.	The uMkhomazi River is dangerous due to the variety of animals found there, which will now be brought closer to us. There are very dangerous snakes in the river. There are large “four legged white animals” and “sheep” that live in the river. The animals will move closer to people once the uMkhomazi River has been closed off. There are dangerous rivers that people do not swim in. Once a person gets inside, he/she does not come out but a white person goes through.	Mr Basi	✓				The significance of indigenous and cultural beliefs in terms of water spirits are recognised in the EIA. Mitigation measures need to be identified through engagement with the Traditional Authorities as well as spiritual and traditional healers.
634.	<p>GRAVES ARE OUR HERITAGE</p> <p>We do not want any interference with graves. If we lose a family member we bury them once and not many times. We don't want to mourn again. They did not die because of violence; they did not die because of politics; they did not die because of violence related to residential areas but it was their time. You will not identify all of the graves.</p> <p>In the olden days people used to specify how they wanted to be buried. Now you want to come and move a person from his burial place.</p> <p>There is also the issue of a child who died young, where the remains of that child will not be found. What about a child that was buried at one month or twins that were buried?</p> <p>What about the hut used for cultural practices?</p> <p>A child that was miscarried will not be found. All these people require cultural ceremonies when they grow older.</p> <p>GRAVES</p> <p>There are graves just below the river, where it will be</p>	Mr Basi	✓				<i>Refer to response for no. 620 regarding graves.</i>

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	<p>closed. They are at great risk of being flooded.</p> <p>ANOTHER ASPECT IS THAT DEATH COMES IN MANY FORMS There is natural death, death through a vehicle accident, through stabbing, through being struck by lightning, through drowning and suicide. They do not get buried in the same place. Even those people who became ill get buried far from other people if they bury them in areas of traditional leaders. It's not like in urban areas where they bury them together.</p> <p>If the people from the dam project exhume them they will plan to bury them together. That is why we do not want them to be relocated. They will do something that should not be done in our culture. They will cause problems between our ancestors and us because we believe in them and they believe in us.</p> <p>There are those who were buried with their knobkerries. Where will they find their knobkerries if they get exhumed? Others were buried at their kraals. If you move them, whose kraals will you bury them at?</p>						
635.	<p>ROADS WHICH WILL BE CHANGED We have a bridge that was built by Italians in 1913 for 8 million, which they want to remove. It is rich in history. In 1976 there was a truck which transported goods from Smith Farm. Its breaks failed and it crashed and many people died. At Kwazashuke two sisters from Mncwabe died, others had broken bones. It therefore holds memories that we will never forget in our lives.</p> <p>Children use this bridge to cross over to Deepdale Farm, Clemont Farm and Kraal Farm when they go to school at Sheshi.</p> <p>Children from Kwabhidla walk to school because their parents are poor and do not have money. Taxis transporting people also use this bridge. This will</p>	Mr Basi	✓			<p>The Heritage Impact Assessment identified Deepdale Bridge (built in 1896 and reconstructed in 1913) as a heritage site that requires a permit from Amafa if it is to be inundated.</p> <p><i>Refer to response for no. 621 regarding mitigating impacts to communities' access due to the road deviations.</i></p>	

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	<p>prevent them from doing so because they want to demolish it. This could increase prices because the route would get extended. The government built tollgates to decrease expenses - they are causing unnecessary expenses for people.</p> <p>Where are the rights of people who are being abused? Nothing is as painful as being abused by the closure of the roads we use. Please intervene Ngonyama, we cannot die with you present, we belong to you.</p> <p>A truck which was loaded with cattle and people crashed and lead to the loss of lives, which is additional history. People still come with candles to remember their lost ones just like the incident with the bridge that was built in 1913, where people are still complaining about that tragedy.</p> <p>There is another bridge which separates Bhidla and Zashuke which will be demolished. We are also concerned about it and are worried that people will walk in the wilderness where they will be at risk of being killed and raped by criminals and drug addicts.</p>																				
636.	<p>Why are we being abused so much? Why is this happening? There are empty graves where we live. They might as well just kill us once and for all so they can proceed with whatever they want to do when we are dead.</p> <p>This will lead to violence so they might as well just kill us. It will be better for blood to be shed then for them to do as they please just because they are white.</p> <p>Our ancestral land which they used for crop and stock farming will be taken away. Where are our rights?</p> <p>Even a prisoner has rights even if he murdered a person the rights remain.</p>	Mr Basi	✓			<p>Traditional Authorities were engaged with as follows during the course of the EIA:</p> <p>1) Meetings with Traditional Authorities - EIA Announcement Phase</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Community / Area</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Impendle Tenant Forum and neighbouring community</td> <td>22-10-13</td> </tr> <tr> <td>2</td> <td>AmaQadi Traditional Council & Community</td> <td>24-10-13</td> </tr> <tr> <td>3</td> <td>Communities near Smithfield Dam (directly east of dam wall)</td> <td>24-10-13</td> </tr> </tbody> </table> <p>2) Meetings with Traditional Authorities - Present the draft Scoping Report</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Community / Area</th> <th>Date</th> </tr> </thead> <tbody> </tbody> </table>	No.	Community / Area	Date	1	Impendle Tenant Forum and neighbouring community	22-10-13	2	AmaQadi Traditional Council & Community	24-10-13	3	Communities near Smithfield Dam (directly east of dam wall)	24-10-13	No.	Community / Area	Date
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	<p>Our biggest problem is that we were never informed of anything.</p> <p>Now they just come and say this and this is going to happen without an agreement with us.</p> <p>They must not complain about people who fled from rural areas, because they did not want to be governed by traditional leaders, we remained behind because we loved our traditional leaders. It is obvious that we have not attained freedom yet if we cannot do things in our own way. We want to be independent. Our land is going to be taken away, but people are getting their land back.</p> <p>WHY ARE WE BEING ABUSED SO MUCH.</p>						<table border="1"> <tr> <td>1</td> <td>Emaqadini Community</td> <td rowspan="3">05-08-14</td> </tr> <tr> <td>2</td> <td>Community near Smithfield Dam</td> </tr> <tr> <td>3</td> <td>Impendle Tenant Forum</td> </tr> <tr> <td>4</td> <td>Macabazini Community</td> <td rowspan="2">06-08-14</td> </tr> <tr> <td>5</td> <td>KwaZashuke Community</td> </tr> <tr> <td>6</td> <td>Baynesfield area</td> <td rowspan="2">07-08-14</td> </tr> <tr> <td>7</td> <td>Umlaas Road area</td> </tr> </table> <p>3) Meetings with Traditional Authorities - present the draft EIA Report</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Community / Area</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Amaqadi Traditional Council & Community</td> <td rowspan="2">13-07-16</td> </tr> <tr> <td>2</td> <td>Deepdale Community</td> </tr> <tr> <td>3</td> <td>Baynesfield Area</td> <td rowspan="2">14-07-16</td> </tr> <tr> <td>4</td> <td>Umlaas Road Area</td> </tr> <tr> <td>5</td> <td>KwaBhidla Traditional Council and Community.</td> <td rowspan="2">15-07-16</td> </tr> <tr> <td>6</td> <td>Impendle Tenant Forum and neighbouring community</td> </tr> <tr> <td>7</td> <td>KwaZashuke Traditional Council and Community</td> <td>16-07-16</td> </tr> </tbody> </table> <p>4) A combined meeting was held with Local Leadership (including Traditional Authorities, ITB, DRD&LR, COGTA, District Municipality) on 10 July 2015 at Calderwood Hall (Boston Road), to update local leaders on the progress of the uMkhomazi Water Project.</p> <p>5) A socio-economic survey (Appendix H6 in the draft EIA Report) of the people living within the buffer strip around Smithfield Dam was undertaken as part of the EIA to gather information necessary for a Social Impact Assessment, Socio-Economic Impact Assessment and Relocation Framework Plan. This survey provided baseline data on the socio-economic environment as well as information on the structures and land use activities within the buffer strip. The purpose of this site survey was thus specifically to engage with the members of the community surrounding Smithfield Dam that could possibly be affected by the dam basin and needed to be relocated.</p>	1	Emaqadini Community	05-08-14	2	Community near Smithfield Dam	3	Impendle Tenant Forum	4	Macabazini Community	06-08-14	5	KwaZashuke Community	6	Baynesfield area	07-08-14	7	Umlaas Road area	No.	Community / Area	Date	1	Amaqadi Traditional Council & Community	13-07-16	2	Deepdale Community	3	Baynesfield Area	14-07-16	4	Umlaas Road Area	5	KwaBhidla Traditional Council and Community.	15-07-16	6	Impendle Tenant Forum and neighbouring community	7	KwaZashuke Traditional Council and Community	16-07-16
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1	Amaqadi Traditional Council & Community	13-07-16																																											
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3	Baynesfield Area	14-07-16																																											
4	Umlaas Road Area																																												
5	KwaBhidla Traditional Council and Community.	15-07-16																																											
6	Impendle Tenant Forum and neighbouring community																																												
7	KwaZashuke Traditional Council and Community	16-07-16																																											

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							The EIA Report recommends that the community around Smithfield Dam need to be consulted at appropriate milestones during the course of the project. In addition, their concerns need to be adequately addressed in the RAP (including arrangements for resettling and compensating affected households), RMP (including future access to and use of the dam), Phase 2 Heritage Impact Assessment and search, rescue and relocation of medicinal plants, graves, etc. Existing communication channels need to be duly respected and adhered to when engaging with the community, which includes the involvement of the Harry Gwala DM, the local councillors, Traditional Authorities and the Ingonyama Trust Board.
Source: Correspondence (Email) – 16 August 2016							
637.	<p>The top of my farm is right next door to ONELOGIX and that piece is up for sale to ONELOGIX. I will not be able to sell with water pipe line going through which would be a huge loss for me.</p> <p>I also don't want the pipeline going straight through my farm across my main driveway as i have to extract cane as well as be able to enter and exit my house and the pipeline will be right in front of my house, which means there will be digging and machinery and people working in front of my house which i am not happy with also the noise. I would prefer if there could be another route looked at, and will have to meet on the farm ASAP to have a look at alternative routes.</p> <p>The pipeline will also be going through my vlei which will effect water flow to my main dam and certain if not all bird species that nest in the location.</p>	K. Chambler				✓	<p>Before construction commences, a negotiator from Umgeni Water will engage with the affected landowners to secure servitude rights. Compensation will be market-based. Compensation is also advised by guidelines which are developed by Umgeni Water as well as other government departments (e.g. Department of Agriculture).</p> <p>Based on the GIS, the main farm house is located approximately 250m from the potable water pipeline route. Provision is made in the EMPr to manage impacts to access, existing farming operations, security, noise, dust, etc. The construction corridor will also be fenced and access gates will be installed.</p> <p>Watercourse crossings will generally consist of pipe sections encased in concrete in accordance with the relevant Umgeni Water criteria. The typical construction methodology for a river crossing is provided in the EIA Report.</p> <p>The EMPr makes provision for the management of watercourses, where the following management objectives have been set:</p> <ul style="list-style-type: none"> • Ensure that the watercourses are protected and incur minimal negative impact to resource quality (i.e. flow, water quality, riparian habitat, morphology and aquatic biota); • Existing water use entitlements not to be affected; and • Structure and functions of watercourses affected by construction activities to be returned to pre-construction state.

6.13 Visual Impacts

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
638.	M van Deventer enquired about the visual impacts associated with the proposed WTW.	M. van Deventer (Baynesfield Estate)				✓	D Henning indicated that one of the positive factors associated with WTW Option 1 is that there is an opportunity for the works to be screened by the existing timber plantation. He noted that the suggestion in the EIA Report (uMWP-1 Potable Water) is for Umgeni Water to acquire additional timber land around WTW Option 1 to utilise the screening offered by existing pine trees. He further stated that the visual impact might only be associated with the administrative building as it will be the highest structure associated with the WTW.
Source: Blue Swallows Working Group Meeting – 12 September 2016							
639.	N Pillay enquired about the visual impacts to the Impendle Nature Reserve and how it had been considered in the EIA Report.	N Pillay (Ezemvelo KZN Wildlife)	✓				D Henning indicated that a visibility analysis had been done as part of the Visual Impact Assessment. He noted that the waterbody would be visible from the Impendle Nature Reserve and that the dam wall would only be visible when water levels were low in the impoundment.

6.14 Climate

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 14 August 2016							
640.	<p><i>Linked to no. 354.</i></p> <ul style="list-style-type: none"> Climate Change. We support the recommendation that studies to establish the net greenhouse gas footprint of Smithfield Dam are undertaken, and that the greenhouse gas 	C. Schwegman (Coastwatch KZN)	✓	✓	✓		Linked to existing mitigation measure included in the EIA Report (Section 12.3.2).

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	emissions from the dam following impoundment be monitored to determine the difference between the emissions with and without the reservoir. This must be documented and the lessons learnt must provide guidance for managing greenhouse gas emissions for future DWS dams.						

6.15 Hydropower

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Correspondence (Letter) – 14 August 2016							
641.	<p><i>Linked to no. 354.</i></p> <ul style="list-style-type: none"> The inclusion of a hydro-electric power facility on the water conveyance infrastructure as an alternative to the national grid makes good sense. 	C. Schwegman (Coastwatch KZN)	✓	✓	✓		Linked to Section 9.7 of the EIA Report, which discusses the hydropower generation as part of uMWP-1. Two potential sites were identified; the first being at the proposed WTW as part of the conveyance structure from Smithfield Dam to the plant, and the second just below Smithfield Dam on the outlet works.

6.16 Planning

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
642.	P Odell enquired why the WTW is not located closer to industrial areas where it will not be noticed.	P. Odell (NCT Tree Farming (Pty) Ltd)				✓	G Subramanian explained that it will be a gravity fed system, which dictates the location of the WTW. He indicated that other sites for the proposed WTW had been considered but the topography was not favourable. He stated that the Mkhambathini Local Municipality had indicated that the WTW must not be

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							located near the Umlaas Road Light Industrial Development Node as it may influence future development in this area. He also indicated that the design of the WTW could consider cladding to minimise the visual impact.
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
643.	E Donaldson made reference to the municipal Spatial Development Framework and indicated that the urban edge currently ends at Afroprop but will be extended in 5 years' time.	E. Donaldson (Mkhambathini Local Municipality)				✓	D Henning mentioned that Umgeni Water were aware that they needed to commence with negotiations to secure the servitude due to development pressures in the Umlaas Road area.
Source: Correspondence (Letter) – 15 July 2016							
644.	<p>It is noted that the review period for this report extends from 4 July 2016 to 15 August 2016 within which period there is no Council meeting due to the forthcoming elections. The Council resolution of 29 August 2014 therefore remains relevant. Additional comments provided in this response are therefore those of the staff of the Technical department within the Municipality.</p> <p>The development impacts on Wards 3 and 4 of this Municipality.</p> <p>The bulk of the municipality's earlier concerns appear to have been addressed in the revised submission.</p> <ol style="list-style-type: none"> 1. The proposed pipeline through Umlaas Road has been re-routed to take account of the AfroProp/One-Logistix development and to avoid the main access road servicing this industrial area. 2. It appears that the WTW in Baynesfield is the preferred option which aligns with the Council's earlier recommendation that it not be located in this municipal area which would negatively impact on our smaller commercial farming operations affecting long term viability. <p>Although it is understood that, from a technical perspective, a primary determinant in siting the infrastructure was ensuring the correct elevation to</p>	ZC Tshabalala (Mkhambathini Local Municipality – Technical Services Department)				✓	<p>Impacts to the Umlaas Road Light Industrial Development Node were investigated as part of the EIA. The project layout for uMWP-1 Potable Water attempts to accommodate development within this node.</p> <p>Specific mitigation measures were included in the EMPr with regards to managing impacts to agricultural activities.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	maintain a gravity fed system, construction of the pipeline will need to proceed with minimum disruption to the agricultural sector.						
Source: Correspondence (completed Reply Form) – 12 August 2016							
645.	With regards to the proposed water pipe line coming through our farm and with the future development in the area we need to relook at where the pipeline will run through the farm.	B. Crookes				✓	The pipeline needs to follow a certain corridor to ensure that the water flows under gravity and to maintain pressure in the system. As part of the EIA a 100m corridor was assessed, which provides limited flexibility for the shifting of the route. However, there are other technical factors that need to be considered before the alignment can be changed.

6.17 Public Participation

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting with Amaqadi Traditional Council & Community (Ncwadi Primary School) – 13 July 2016							
646.	Councillor Ngcobo recommended that workshops be held with all the Traditional Authorities and tenants on the state-owned land, which would enhance these parties' understanding of the project.	Councillor Ngcobo	✓	✓			K Bester welcomed the suggestion and indicated that the TCTA would engage further with the community and convene such workshops once they had received the directive from the Minister.
Source: Meeting at Baynesfield Club – 14 July 2016							
647.	M van Deventer asked about the status of the process and the timeframes involved.	M. van Deventer (Baynesfield Estate)	✓	✓	✓	✓	D Henning noted that the Scoping phase had been completed. He indicated that the specialist studies were subsequently undertaken and the draft EIA Reports had been compiled, which are currently out for public review until 15 August 2016. He explained the EIA timeframes by referring to a slide in the presentation, which showed key dates for the remainder of the process.
648.	M van Deventer asked what could Interested and Affected Parties (I&APs) do if they were not satisfied with the decision by the Department of Environmental Affairs (DEA).	M. van Deventer (Baynesfield Estate)	✓	✓	✓	✓	D Henning indicated that the EIA Regulations make provision for an appeal process after the decision has been made by DEA.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Vans Hotel (Umlaas Road) – 14 July 2016							
649.	F Peters asked how the meeting went at Baynesfield that was held earlier in the day.	F Peters	✓	✓	✓	✓	D Henning provided feedback on the meeting's proceedings and the type of questions that were raised. <i>Refer to minutes of meeting attached to the final EIA Report.</i>
Source: Correspondence (Email) – 1 August 2014							
650.	As a landowner who will be directly affected by the pipeline of the proposed uMWP-1 project, I have a few questions which I hope you will be able to answer. 1. Has the local community of farm workers been approached about this project, and have public participation meetings been held in Zulu or with a translator? It is claimed that targeted meetings will happen, but have they, and where?	B. Seele		✓			A series of meetings were held in Zulu during the announcement, Scoping and EIA phases with the communities in the western portion of the study area, which includes land owned by the state and under the Ingonyama Trust Board. General public meetings were convened in the eastern portion of the study area, where a translator was also present to accommodate Zulu-speaking attendees. Communication in Zulu during the EIA process to date was facilitated as follows: <ul style="list-style-type: none"> • English and Zulu versions of the onsite notices were erected along the project footprint during the announcement phase; • Zulu versions of the various notifications (announcement phase, review of draft Scoping Report and review of draft EIA Report) were placed in the Isolezwe newspaper; • The Reply Form, which was distributed during the project announcement phase, was translated into Zulu; • An onsite survey was conducted in Zulu at the proposed Smithfield Dam site with members of the community; • The executive summaries of the draft Scoping Report and draft EIA Report were translated into Zulu and distributed during public meetings; and • The Comment Sheets for the draft Scoping Report and draft EIA Report were translated into Zulu and distributed during public meetings.
651.	2. Is it possible to send me a high res map of the proposed pipeline? The one in the draft EIA report is not clear enough.	B. Seele		✓			According to our database, the Seele Family owns farms on Dunbar Estate 1478 and Driefontein 854. I've created maps (see attached orthophoto and topographical map), which show the project footprint in relation to these farms. Please let us know if you require any additional maps, which we can create on our GIS for you. The proposed conveyance tunnel crosses underneath both these

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							farms at an approximate depth that mostly exceeds 400m. There are no shafts or access adits earmarked for these farms.
652.	4. Where will comments from the public appear and will all comments be recorded for the final decision by the department? And what is the correct way of commenting on the draft? It is not clear from your email, and I request that you send out another email to all affected parties to explain this.	B. Seele		✓			<p>All comments received from Interested and Affected Parties (including correspondence, minutes of meetings and completed Comment Sheets) from the review of the Draft EIA Report will be incorporated into the final Comments and Responses Report. This report will be appended to the final EIA Report, which will also be lodged in the public domain for review.</p> <p>Comments can be made in a format that is most convenient to the Interested and Affected Parties, including emails, letters, completed Comment Sheets (see 3rd attachment) and comments raised at public meetings.</p> <p>Your comments received via email will also be included in the Comments and Responses Report.</p> <p>A meeting was held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p> <p><i>Refer to response to no. 656 regarding instructions for commenting on the draft EIA Report.</i></p>
Source: Correspondence (Email) – 4 August 2014							
653.	<p>Further comments:</p> <p>A number of links on the website link pasted in your previous email, do not work. For example, I cannot access the terrestrial Fauna and Flora report. Please can you ensure that all links work.</p> <p>Furthermore, I would like to officially request an extension for the public comments deadline, as Nemaï consulting have made it very difficult and time consuming to a) locate the comments document, and b) no instructions were given on how to comment.</p>	B. Seele		✓			<p>The website error related to the Terrestrial Ecological Impact Assessment, and it was corrected the day after it was reported. No other complaints were received and all other files were downloadable. The Avifauna Report was subsequently shared with B Seele via Google Drive. In addition, a CD containing both EIA Reports and their respective appendices was also subsequently couriered to B Seele.</p> <p>A total of 43 days (04 July – 15 August 2016) were provided to comment on the draft EIA Report. The EIA process is being conducted in terms of the EIA Regulations on 2010, and the final EIA Report will also be lodged for public review. This will afford all I&APs another opportunity to provide comments.</p> <p>It is noted that comments received from B Seele from Trewirgie Farm (refer to letter in no. 393 received on 18 August 2016), after</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>the end of the review period, were also included in the Comments and Responses Report.</p> <p><i>DWS Response: Dear Barbara for me it is very important that a PSP follow due process and consult widely, in fact the time for NEMA to complete the EIA has already been extended and they had more meetings than what was specified in our Terms of Reference.</i></p> <p><i>If you live in KZN and experienced the recent drought you should realize under what pressure the water resources are. I am of the opinion the Department should fast track resource development and not slow it down, subject to obtaining the necessary approvals. Please take note that some people could download all the documents, after you indicated that you had a problem it was fixed within a few days. At this stage it will be very difficult to reach all the I&APs who attended the meetings, some of the walked long distances, some drove from PMB and further. It is virtually impossible to reach all of them and indicate to them that there is an extension to comment, most are not privilege and do not have internet access.</i></p> <p><i>I urge you to concentrate on the components and associated reports that will affect you most. Please prioritize your comments and send them as soon as you are finished even if they are send bits and pieces. If I understood Donovan correctly you will have a final opportunity to respond to the final EIA Report. The current process is not closing your opportunity to respond but for me to change, so late in the day, deadlines will be problematic.</i></p>
654.	In the interim please could you provide me with the contact details of Kobus Bester and others from the Department of water affairs and sanitation representing this project.	B. Seele		✓			<p>Mr Bester is the correct contact person, as he is the responsible person at DWS for this project. His contact details follow (he is also copied in on this email):</p> <p>Kobus Bester Chief Engineer: Options Analysis (East) T: 012 336 8071 E: BesterK@dws.gov.za</p>
655.	Please could you forward this email to the relevant persons within your respective departments. As a directly affected landowner, I hereby officially request an extension of the deadline (15 August	B. Seele		✓			<p><i>Refer to response to no. 653 regarding extension of review period.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>2016) for comments on Draft EIA Reports for the uMWP-1 Raw Water and Potable Water components. My reasons for this request are explained below.</p> <p>1. Official links to documents, placed on the Department of Water Affairs and Sanitation website https://www.dwa.gov.za/Projects/uMkhomazi/documents.aspx were found to be faulty on the 1 August 2016, which, one can assume, have been faulty from the 4 July. Therefore members of the public who could not access hard copies of these reports, did not have access to these important documents, and therefore could not comment on them. One of the reports that could not be accessed was the Avifauna study which contains information on the severely endangered Blue Swallow, and represents one of the main concerns around this project.</p>						
656.	<p>2. The process of commenting on the draft is very complicated and difficult, and is not explained in any of the emails. It can only be found by scrolling through a large number (106) of other document links, in appendix M of Module 2. The location of this link was not described in the email that contained the draft reports. The comment document is a small Word document and can easily be attached to the email that contains the draft EIA reports. I request that an email be sent out to all IAPs that contains the comment document as an attachment.</p>	B. Seele		✓		<p>The notification letter which was sent to the I&APs at the beginning of the review period made clear reference to the following: "For comments and remarks on the Draft EIA Reports Interested and Affected Parties (I&APs) can complete a Comment Sheet, which will be provided at the locations where the documents have been lodged. Completed Comment Sheets should be returned to Nemai Consulting by 15 August 2016."</p> <p>The Comment Sheet was clearly indicated in the List of Appendices in the EIA Report as Appendix M (uMWP-1 Raw Water EIA Report).</p> <p>Copies of the Comment Sheets were also provided during the public meetings. The EIA Public Meeting at Baynesfield Club on 14 July 2016 was attended by the following representatives from Trewirgie Farm: Maria Seele and Ben Seele.</p> <p>As per the suggestion, we sent out an email to Interested and Affected Parties with the Comment Sheet and indicating which are the preferred options.</p>	
657.	<p>3. The quality and resolution of the maps in the draft EIA report is low, and I was not able to clearly see where the pipeline will run. Please could you add a higher resolution map, with a smaller legend so as</p>	B. Seele		✓		<p>Note that there is an incorrect reference to a "pipeline". The farms in question are only affected by the proposed tunnel.</p> <p>The project area was broken up into four sections and high</p>	

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	not to obscure details.						resolution orthophotos of these sections were included in Appendix D of the draft EIA Report. Map 3 includes the Dunbar Estate and Driefontein Farms, and clearly shows the route alignment of the tunnel.
658.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>1. a) A series of meetings have been held in the eastern and western portions of the study area, yet none in the southern and northern? Does Nema Consulting have any plans to hold meetings in these areas? Could you also please send me the dates of these meetings?</p>	B. Seele		✓			<p>In general, please note that the Public Participation process is well documented in the Scoping and EIA Reports, which includes a list of Interested and Affected Parties (including landowners), minutes of meetings (with completed attendance registers), proof of notification (onsite, newspapers. BIDs), etc.</p> <p>Details of key meetings held during the course of the EIA include the following:</p> <ol style="list-style-type: none"> 1. 14 February 2013 - Environmental Authorities Meeting 2. 07 August 2013 - Meeting held with the Managing Director of Joseph Baynes Estate 3. 22 October 2013 - Project Announcement – Public Meeting 4. 23 October 2013 - Project Announcement – Public Meeting 5. 23 October 2013 - Project Announcement – Public Meeting 6. 24 October 2013 - Project Announcement – Public Meeting 7. 24 October 2013 - Project Announcement – Public Meeting 8. 30 January 2014 - Meeting with Baynesfield Community to discuss new alternatives 9. 18 March 2014 - Senior Officials Information Sharing Session 10. 06 June 2014 - Meeting held with Baynesfield Estate to discuss new project alternatives 11. 23-24 July 2014 - Meeting held with DWA Head Office and KZN Regional Offices to discuss WULA 12. 05 August 2014 - Present draft Scoping Report – Public Meeting 13. 05 August 2014 - Present draft Scoping Report – Public Meeting 14. 05 August 2014 - Present draft Scoping Report – Public Meeting 15. 06 August 2014 - Present draft Scoping Report – Public Meeting 16. 06 August 2014 - Present draft Scoping Report – Public Meeting 17. 07 August 2014 - Present draft Scoping Report – Public Meeting 18. 07 August 2014 - Present draft Scoping Report – Public Meeting

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>Meeting</p> <p>19. 19 August 2014 - Meeting with Joseph Baynes Estate Trustees</p> <p>20. 03 September 2014 - Environmental Authorities Meeting to present Scoping Reports</p> <p>21. 02 October 2014 - Presentation to Ingwe Local Municipality Council</p> <p>22. 16 March 2015 - Discuss the implications of the project to the Impendle Nature Reserve and determine EKZNW's requirements</p> <p>23. 10 July 2015 - Provide background and update local leaders on the progress of the uMkhomazi Water Project, and discuss concerns.</p> <p>24. 25 August 2015 - Harry Gwala EXCO</p> <p>25. 2 March 2016 - eThekweni Municipality</p> <p>26. 13 July 2016 - Present draft EIA Report – Public Meeting (Amaqadi Traditional Council and Community (Ncwadi Area))</p> <p>27. 13 July 2016 - Present draft EIA Report – Public Meeting (Deepdale Community)</p> <p>28. 14 July 2016 - Present draft EIA Report – Public Meeting</p> <p>29. 14 July 2016 - Present draft EIA Report – Public Meeting</p> <p>30. 15 July 2016 - Present draft EIA Report – Public Meeting (KwaBhidla Traditional Council and Community)</p> <p>31. 15 July 2016 - Present draft EIA Report – Public Meeting (Impendle Tenant Community)</p> <p>32. 16 July 2016 - Present draft EIA Report – Public Meeting (KwaZashuke Traditional Council and Community)</p> <p>The reference to eastern and western refers to the project footprint (i.e. the area earmarked for physical infrastructure). The project starts in the west at Smithfield Dam and ends in the east at Umlaas Road. Various meetings with authorities were also held in Durban and Pietermaritzburg.</p> <p>Please find attached the Comments and Responses Report, which indicates that Interested and Affected Parties have been engaging with us since October 2013.</p>
659.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>b) onsite notices were erected along the project footprint, could you please explain what is meant by</p>	B. Seele		✓			<p>In accordance with the EIA Regulations, the onsite notices were erected during the project announcement phase (October 2013).</p> <p>The details of the locations of the onsite notices in relation to the</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	the project's footprint, and when exactly this was						<p>project area are included in the Scoping Report (available on project website).</p> <p>The project footprint refers to the areas planned to construct the physical infrastructure associated with the proposed uMWP-1.</p>
660.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>c) Does Nema consulting know what the readership statistics are for Isolezwe within the study area</p>	B. Seele		✓			<p>The newspapers used as part of notification during the EIA included The Star (English), The Witness (English) and Isolezwe (Zulu). The last-mentioned newspaper was identified as the preferred newspaper for the Zulu-speaking community in the area.</p> <p>The Isolezwe Newspaper was identified in consultation with the members of the community as the relevant isiZulu newspaper.</p>
661.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>d) Only one on site survey was conducted in IsiZulu with members of the community, for a large project covering a large project area this is very little</p>	B. Seele		✓			<p>The western portion of the project area, including Smithfield Dam and the first ± 21 km of the tunnel, falls under Traditional Authority and state land. The area is characterised by traditional homestead settlements and rural subsistence agriculture. The eastern part of the project area, which includes the remaining part of the tunnel (± 11.5 km), balancing dam and raw water pipeline, is privately owned.</p> <p>A socio-economic survey (Appendix H6 in the draft EIA Report) of the people living within the buffer strip around Smithfield Dam was undertaken as part of the EIA to gather information necessary for a Social Impact Assessment, Socio-Economic Impact Assessment and Relocation Framework Plan. This survey provided baseline data on the socio-economic environment as well as information on the structures and land use activities within the buffer strip.</p> <p>The purpose of this site survey was thus specifically to engage with the members of the community surrounding Smithfield Dam that could possibly be affected by the dam basin and needed to be relocated. This excluded the series of public meetings that were held in Zulu with the communities.</p>
	<p><i>Follow-on email – refer to no. 650.</i></p> <p>e) Could you give me numbers of how many Zulu speaking members were present at the public meetings?</p>	B. Seele		✓			<p>The number of Zulu-speaking community members present at the public meetings are as follows:</p> <ul style="list-style-type: none"> • Announcement phase – 151; • Scoping phase – 249; and • EIA phase – 238. <p>Note that the above numbers were calculated from the completed attendance registers, which were all available in the Scoping and</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							EIA Report.
Source: Correspondence (Email) – 5 August 2014							
662.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>As a landowner in KZN I am very aware of the recent drought. I am however, also aware of firstly, the lack of maintenance on existing water supply structures in the greater Durban area, secondly) of the direct and indirect threats of this project to the very endangered Blue Swallow that nests on my land (one of the very few nesting sites in the world) to name just one of the very threatened species, and thirdly) that certain elements are missing in the EIA process. As a land owner, directly affected, I am very disappointed in the lack of direct contact and information between the Department, project engineers, Nemaï Consulting and the landowners. The fact that one of the most important documents pertaining to the EIA could not be accessed online is disturbing, and that the comment process is so complicated does not bode well for public participation.</p> <p>I understand that changing deadlines could be problematic to you, but the correct process not being followed, and public participation and information sharing being hindered is also a big problem.</p> <p>With all due respect, what is stopping Nemaï consulting from sending out an email with attached comment document and explanation of the choice of route option?</p> <p>In addition, both at the public meetings and in your email, you comment as if the EIA has already been passed, which is not the case.</p>	B. Seele		✓			<p><i>Refer to response to no. 653 regarding extension of review period.</i></p> <p><i>Refer to response to no. 656 regarding instructions for commenting on the draft EIA Report.</i></p> <p>As per the suggestion, we sent out an email to Interested and Affected Parties with the Comment Sheet and indicating which are the preferred options identified during the EIA.</p> <p>A meeting was held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p>
Source: Correspondence (Email) – 5 August 2014							
663.	<i>Follow-on email – refer to no. 650.</i>	B. Seele		✓			The application process and environmental legal framework are also discussed in the draft EIA Report (and preceding Scoping

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			Smithfield Dam	Tunnel	Balancing Dam		
	Is the Department of Environmental Affairs and Tourism involved in the decision making process around the EIA for this project? If so, could you please send me the relevant contact details. As far as I know an EIA, even if for the Department of Water Affairs must be authorised through NEMA.						Report), which states that DEA is the competent authority in terms of NEMA. The details of the DEA case officer are as follows: Nyiko Nkosi Department of Environmental Affairs: Integrated Environmental Authorisation Tel: 012 399 9392 E: NNkosi@environment.gov.za.
664.	<i>Follow-on email – refer to no. 650.</i> <i>Could you please send proof of notification to landowners of the commencement of this project.</i>	B. Seele		✓			The representatives of Trewirgie Farm that were included in the initial I&AP database (refer to Scoping Report) included CA Seele and BA Seele. The notification was forwarded to seeleben@telkomsa.net. BA Seele already attended the public meeting at Baynesfield Club during the EIA Announcement phase on 23 October 2013 (refer to Appendix N of the Scoping Report). Refer to Scoping Report for further details of notification of landowners.
665.	The draft EIA reports from Nema consulting seem to be more of a summary of regulations and legislated process to follow, rather than of the actual impact assessment and does not provide any information of impacts and of specialist study results. Again, it is made very difficult for the public to gain clear information on this, as sorting through more than 100 sometimes non-descriptive and very technically named links on the DWS website is difficult and complicated. <i>Follow-on email on 5 August from B Seele, following response:</i> Thank you for the offer to meet with me. I would like to suggest a meeting with all landowners of Trewirgie. I am currently in Stellenbosch, finishing my masters, but could try to fly up for a meeting, if it can be given to me in writing that comments raised at the meeting will be included in the final environmental impact report, even if it is held after the 15th August. It would be good to have the meeting at the farm, so that both the fragile blue swallow nest structures concerns and the concerns about ground water impact can be addressed on site.	B. Seele		✓			A document roadmap is provided in Section 2 of the draft EIA Report to assist the reader and which shows how the EIA Report is aligned with the content requirements stipulated in Regulation 31 of GN No. R. 543 (18 June 2010). The information obtained from the respective specialist studies was incorporated into the draft EIA report in the following manner: <ul style="list-style-type: none"> • The information was used to complete the description of the receiving environment (Section 10) in a more detailed and site-specific manner; • A summary of each specialist study is provided, focusing on the approach to the study, key findings and conclusions drawn (section 11); • The specialists' impacts assessment, and the identified mitigation measures, were included in the overall project impact assessment (Section 12); • The evaluations performed by the specialists on the alternatives of the project components were included in the comparative analysis to identify the most favourable option (Section 13); • Specialist input was obtained to address comments made by Interested and Affected Parties (I&APs) that related to specific environmental features pertaining to each specialist discipline; and • Salient recommendations made by the specialists were taken

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>forward to the final EIA Conclusions and Recommendations (Section 15).</p> <p>Based on your comments, please refer to the following sections of the draft EIA Report for further information:</p> <ul style="list-style-type: none"> • An overview of the environmental and technical specialists studies is provided in Section 11, from pages no. 359 – 416; and • The impact assessment (quantitative and qualitative), which includes the information from the specialist studies, is contained in Section 12, from pages no. 417 – 564. <p>The layout of the website logically represents the body of the EIA Reports and the accompanying appendices of the Raw and Potable Water components. The appendices are also clearly reflected in the draft EIA Report, which are contained on the website under headings marked with the appendices' numbers – refer to screen print of website (extract) to follow.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>Module 2: Environmental Impact Assessment</p> <p>Raw Water</p> <ul style="list-style-type: none"> ■ Raw Water - Scoping Report - Final (Oct 2014) ■ Raw Water Scoping Report - Final - Appendices ■ Raw Water EIA Report (Draft) <p>Appendix A</p> <ul style="list-style-type: none"> ■ Raw Water Regional Map ■ Raw Water Orthophoto ■ Raw Water Topo <p>Appendix B</p> <ul style="list-style-type: none"> ■ Raw Water DEA Approval of Scoping Report <p>Appendix C</p> <ul style="list-style-type: none"> ■ Raw Water (Smithfield Dam) - NEMA Application Fo ■ Raw Water (Balancing Dam) - NEMA Application Fo ■ Raw Water (Water Conveyance Infrastructure) - NE <p>There are a number of matters that you have raised, all of which will be included in the Comments and Responses Report. May we</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							<p>offer to meet with you to discuss your concerns? Kobus Bester and myself can come through to the farm, or another venue that is suitable for you. We would like to provide further details of the project and the EIA process, as well as afford you the opportunity to raise your concerns. Please advise.</p> <p>A meeting was subsequently held with representative of the Trewirgie Farm on 18 August 2016 to specifically discuss their concerns. A copy of the minutes of this meeting is contained in the final EIA Report.</p>
Source: Correspondence (Email) – 5 August 2014							
666.	<p>I see that the landowners of Trewirgie Farm and associated portions are not on your database. Please include:</p> <p>Dr CA Seele (seelecarl@telkomsa.net) Mr BA Seele (seeleben@telkomsa.net) Dr RM Seele (ruseele@gmail.com) Ms MJ Seele (mariaseele@gmail.com) Ms ME Seele (monseele@gmail.com) Ms BC Seele (barbarseele@gmail.com)</p>	B. Seele		✓			<p><i>Refer to response to no. 664 regarding notification of Trewirgie Farm.</i></p> <p>The I&APs database in the Scoping Report and draft EIA Report include CA Seele and BA Seele.</p> <p>Details of additional representatives from Trewirgie Farm included in I&APs database.</p>
Source: Correspondence (Email) – 5 August 2014							
667.	<p><i>Follow-on email – refer to no. 650.</i></p> <p>I see that the Chief Director of Integrated Environmental Affairs asked for proof of attempts to obtain comments from I&APs to be included in the Environmental Impact Assessment.</p>	B. Seele		✓			<p>The Public Participation process is well documented in the Scoping and EIA Reports, which includes a list of Interested and Affected Parties (including landowners), minutes of meetings (with completed attendance registers), proof of notification (onsite, newspapers, BIDs), etc.</p> <p>Please find attached the Comments and Responses Report, which indicates that Interested and Affected Parties have been engaging with us since October 2013.</p> <p><i>Refer to response to no. 664 regarding notification of Trewirgie Farm.</i></p>
Source: Correspondence (completed Comment Sheet) – 8 August 2014							
668.	<p><i>Linked to no. 367.</i></p> <p>3. The link to the specialist Avifauna study, containing information of the threat and impact of</p>	Dr RM Seele		✓			<p><i>Refer to response for no. 364 regarding the management strategy for Blue Swallows.</i></p> <p><i>Refer to response to no. 653 regarding the error to the website.</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	<p>this project on Blue Swallows, was found to be faulty, and prevented the public from viewing this very important document for the entire duration of the 40-day comment period.</p> <p>4. Effort to directly contact affected landowners was only made by Nemaï consulting in the latter half of the comment period, after receiving complaints from landowners.</p>						<p>The representatives of Trewirgie Farm that were included in the initial I&AP database (refer to Scoping Report) included CA Seele and BA Seele. The notification was forwarded to seeleben@telkomsa.net. BA Seele already attended the public meeting at Baynesfield Club during the EIA Announcement phase on 23 October 2013 (refer to Appendix N of the Scoping Report).</p> <p>Refer to Scoping Report for further details of notification of landowners.</p>
Source: Correspondence (completed Comment Sheet) – 12 August 2014							
669.	<p><i>Linked to no. 377.</i></p> <p>8. Comment on EIA process After finding the online link to the Specialist Avifauna Draft Report faulty on the 1st August 2016, I requested an extension of the public comment deadline as this pertinent environmental document could not be accessed for the majority of the comment period and contains vital information that can influence public comments. Both Nemaï Consulting and the Head Engineer, Kobus Bester, refused the request. I feel that public information and public commenting has hereby been curtailed. As a directly affected landowner, I also feel that Nemaï consulting only made the necessary effort to contacted landowners directly, after I issued a complaint (starting 1 August) via email. In addition, the process for commenting on the draft reviews was (for more than half of the 40-day period) very complicated and difficult and no active effort was made to reach I&APs and explain the process accordingly. Only after commenting on this, did Nemaï consulting send out an email to all I&APs with attached comment sheet.</p>	B. Seele		✓			<p><i>Refer to response to no. 653 regarding the error to the website.</i></p> <p><i>Refer to response to no. 665 regarding the layout of the website.</i></p> <p><i>Refer to response to no. 664 regarding notification of Trewirgie Farm.</i></p>
Source: Correspondence (completed Comment Sheet) – 14 August 2014							
670.	<p><i>Linked to no. 384.</i></p> <p>2) Concerns about the manner in which potential</p>	J. Cockburn	✓	✓	✓		<p>It is assumed that the person you refer to is B Seele, who is a landowner of Trewirgie Farm. <i>Refer to response to no. 664 regarding notification of Trewirgie Farm from the onset of the EIA</i></p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
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	<p>threats are dealt with in the EIA process and the transparency and quality of the EIA process to date:</p> <p>It would appear that there was insufficient public participation notice given in the lead up to this project. A friend of mine who lives on one of the affected farms only heard about this project over a year into the process – how is this possible? This casts doubt on the transparency and quality of the EIA process to date.</p>						<i>process in 2013.</i>
Source: Meeting on Trewirgie Farm – 18 August 2016							
671.	L Seele asked how the comments received from I&APs have been attended to as part of the EIA.			✓			<p>D Henning explained that the primary results of the comments received included the following:</p> <ul style="list-style-type: none"> • The identification and investigation of new project alternatives, where relevant; • The identification of new specialist studies and expansion of the scope of existing specialist studies, where relevant; and • All comments were responded to by the relevant members of the project team.

6.18 General

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
Source: Meeting at Baynesfield Club – 14 July 2016							
672.	M van Deventer asked how recommendations could be changed.	M. van Deventer (Baynesfield Estate)	✓	✓	✓	✓	D Henning noted that a change to a recommendation made in the EIA Reports could be proposed in writing to Nema Consulting, which would then be considered by the respective project teams (uMWP-1 Raw Water and Potable Water). He also noted that any requirements of the I&APs that may need to be included as a possible condition to authorisation should be indicated in the comments.

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
							D Henning and K Bester to meet with M van Deventer to discuss his comments further. <i>Meeting held with M van Deventer on 18 August 2016.</i>
Source: Meeting with Impendle Tenant Community (Soccer Field) – 15 July 2016							
673.	Mr Sokhela queried the relationship between DRD&LR and the Department of Environmental Affairs. He further stated that the following matters needed to be considered: <ul style="list-style-type: none"> Balanced sourcing of employment; Permanent employment opportunities; and Benefits in terms of potential future tourism opportunities. 	Mr Sokhela	✓				D Henning indicated that community beneficiation could be promoted through the future Resource Management Plan for the dam.
Source: Correspondence (completed Comment Sheet) – 12 August 2014							
674.	<i>Linked to no. 377.</i> 10. Comment on Raw Water EIA Draft Report On pg. 47 and 48 it states that as a response to DEA's request for information on the environmental costs of the water project (...), Nemaï consulting has placed emphasis on 'understanding both the costs of the establishment (...) as well as the long term benefits of the proposed scheme. There is an imbalance here: long term benefits are described, but no long-term environmental costs have been calculated and described. This is also reiterated in the specialist avifauna study. The public has a right to information regarding the long term environmental costs of this project. And the project must perform studies on the long term impacts of the project on the environment and the ecosystem services that the success of the scheme relies on! In addition, on pg. 73 – no mention is made of the environmental impacts of each of the scheme options. I am disappointed that yet again, even though South Africa has some of the best environmental protection legislature, the impacts of this schemes on the environment (that the scheme ultimately depends on-water) was not taken into consideration when comparing schemes. A few pages down in Table 11	B. Seele		✓			The Economic Impact Assessment (Appendix H10) reviews the locality, the drivers of water resource demand in the catchment areas and provides an overview of the anticipated impacts of the total development. Emphasis is placed on understanding both the costs of the establishment of the scheme, as well as the long term benefits within an economic cost-benefit framework that reviews the opportunity costs associated with the proposed scheme. Refer to further related discussions in Section 12.22 of the draft EIA Report. With regards to the reference to page no. 73, note that this section was sourced from the uMkhomazi-Mgeni Transfer Scheme Pre-Feasibility Study from 1999. The Pre-feasibility Study follows on from the Mgeni River System Analysis Study carried out between 1991 and 1994, in which the uMkhomazi River was identified as a potentially viable source of water for augmentation of the Mgeni System, and the Mooi-Mgeni Transfer Feasibility Study carried out in 1995, in which the first phase scheme to augment the Mgeni System from the Mooi River was investigated in detail and possible second phase schemes were identified. This Study included inter alia a pre-feasibility investigation of augmentation schemes on the uMkhomazi River preceded by scheme identification and reconnaissance investigations. Environmental factors did play a role in the appraisal of the eight possible schemes during the Pre-Feasibility Study, as reflected on pages no. 73 – 77, where the following schemes were eliminated by

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	Row 3B: no mention is made of the, clearly, very high, environmental impact of this scheme. This missing information needs to be added. Furthermore, in Table 13, no mention is made of the negative impacts of this project on the most threatened bird in South Africa. In conclusion, as a directly affected landowner, biodiversity custodian and blue swallow conservationist, I believe that the recommendations of the draft EIA report do not take the severity and long term environmental effects of the scheme into consideration.						<p>taking into consideration environmental impacts (refer to Tables 10 – 13):</p> <ul style="list-style-type: none"> • Clayborne Scheme (Scheme 2); • Ndonyane Scheme (Scheme 4); • Winters Valley-Lovu (Scheme 5); • Inzinga-Mgeni (Scheme 6); and • Impendle Pipeline (Scheme 7). <p>The uMWP-1 website contains further information on previous studies, including:</p> <ul style="list-style-type: none"> • Water Reconciliation Strategy Study for the KwaZulu-Natal Coastal Metropolitan Areas, 2011; • Mkomazi/Mooi-Mgeni Transfer Scheme Pre-feasibility Study, 1999; • Development of a Reconciliation Strategy for All Towns in the Eastern Region, 2010; • Umgeni Water Infrastructure Master Plan, 2010/11; and • Classification Study.
675.	<p>21. Further comments on UMkhomazi Water Project Phase 1: Module 1: Technical Feasibility Study</p> <p>Under section 6-1 it stated that the shortest possible route was chosen for the tunnel, this of course takes cost into consideration, but not environmental risk. I would like to oppose the process whereby the determination of the tunnel and balancing dam location is only guided by cost. Environmental impact should play a much larger role here.</p>	B. Seele		✓			<p><i>DWS Response: The EIA includes all environmental factors, including the biophysical, natural and socio-economic environment. In this instance, the socio-economic environment is the overriding factor due to the significant costs associated with tunnelling (about R100 000 per metre). These costs will be borne by the end users (through the increase in water tariffs) of whom two thirds earn less than R 3000/month per household.</i></p>
Source: Correspondence (Letter) – 14 August 2016							
676.	<p><i>Linked to no. 354.</i></p> <p><u>IMPACT STATEMENT</u></p> <p>An Environmental Impact Statement is provided along with critical environmental activities that need to be executed during the project life-cycle. It is recommended that further investigations are conducted based on EIA findings and recommendations.</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>Critical environmental activities are provided in the EIA Report that need to take place after the EIA (if the project is authorised). An example of such an activity is biodiversity offsets.</p> <p>The approach to biodiversity offsets adopted in the EIA for uMWP-1 focused on first understanding what will be lost. The ecosystems to be lost as part of the project were quantified and qualified in the EIA Report, with input from the relevant specialists. Possible recipient sites for biodiversity offsets were also identified during the EIA, in consultation with EKZNW and landowners. Potential</p>

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	In our opinion investigations which are deemed relevant to achieve the required outcomes of the project must be undertaken during the EIA and not deferred to future processes (for example the biodiversity offsets and required ecological infrastructure restoration).						<p>sites mentioned in the final EIA Report include land under the Protected Area Expansion Programme that is representative of the Impendle Nature Reserve, wetlands along Mbangweni and Umlaza Rivers (on Baynesfield Estate) and the rehabilitation of mistbelt grassland. In addition, it is also indicated that targeted investment in the maintenance and rehabilitation of Ecological Infrastructure (functioning ecosystem with associated services) in the uMkhomazi Catchment be supported. Refer to discussion on biodiversity offsets in Section 12.11 of the final EIA Report.</p> <p>It is suggested that the detailed biodiversity offset design be taken forward in the remaining phases of the project life-cycle, by building on the information included in the EIA Report.</p>
677.	<p><u>IMPACT MITIGATION AND MANAGEMENT</u></p> <p>The mitigation of negative impacts on biodiversity is a legal requirement for authorisation purposes. In dealing with the range of potential ecological impacts to natural ecosystems and biodiversity mitigation is best achieved through the incorporation of the recommended impact management and mitigation measures into a suitable Environmental Management Programme (EMPr) for the project, separated into construction and operational phase. The EMPr should define the responsibilities, budgets and necessary training required for implementing recommendations made in the report. It will need to include appropriate monitoring as well as impact management and the provision for regular auditing to verify environmental compliance.</p> <p>The EIA Report concludes with key recommendations and identifies critical environmental activities that need to be executed during the project life-cycle. As certain of the critical environmental activities, ie mitigation measures, for the raw water component of the uMWP-1 are either not the responsibility of the applicant or there is shared responsibility with other entities mitigation of the impacts from the construction and operation of the dams and infrastructure is not in any way assured at this stage</p>	C. Schwegman (Coastwatch KZN)	✓	✓	✓		<p>The critical environmental activities included in Section 15.2 of the EIA Report need to be pursued by DWS as the project proponent. Where collaboration is required with other Government Departments, it will be the responsibility of DWS to coordinate the requisite interaction. DWS will be audited against the conditions of the Environmental Authorisation and will need to provide feedback to DEA on status and compliance in this regard.</p>

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
	of the process. Specific interventions are required by roleplayers who will not be legally bound by the conditions of environmental authorisation and the EMP. How will their responsibilities and budgets be defined?						
Source: Meeting on Trewirgie Farm – 18 August 2016							
678.	C Seele stated that at the moment with the issues that were raised during the meeting the Seele family oppose the project.	C Seele	✓	✓	✓	✓	<i>Refer to responses provided in this report to issues raised by members of the Seele family.</i>
Source: Blue Swallows Working Group Meeting – 12 September 2016							
679.	B Coverdale expressed concern over the perception that the Environmental Authorisation would be issued and that the EIA was merely a paperwork exercise. He further noted that other options needed to be considered.	B. Coverdale (Ezemvelo KZN Wildlife)	✓	✓	✓	✓	D Henning explained that the slide presented by K Bester, which made reference to receiving Environmental Authorisation, was compiled for project planning purposes. He indicated that the EIA had already commenced in 2013 and had been extended to consider alternatives. He also indicated that the Scoping and EIA Reports included a section on screened alternatives in terms of meeting the objective of increasing the water available in the Mgeni Water Supply System. This included Water Conservation and Demand Management, re-use of treated effluent, groundwater and desalination. He noted it was found that the volume of water required is too large to be satisfied by these options. He also indicated that various augmentation schemes had been assessed as part of the Pre-feasibility Study which lead to the recommendation of the uMWP-1.
680.	I Felton noted that the matters raised at the meeting should have been identified during Scoping, as the EIA process is already far advanced. He indicated that the authorities needed to make informed decisions. He urged the parties present to provide comments on the final EIA Report, based on the issues raised, which will be taken into consideration by the DEA Case Officer.	I. Felton (KZN EDTEA)	✓	✓	✓	✓	<i>I&APs to be notified of the review period for the Final Scoping Report.</i>
681.	I Felton stressed the need to apply the mitigation hierarchy and in those cases where impacts could not be prevented or minimised, offsets needed to be considered to achieve no net loss of ecosystems.	I. Felton (KZN EDTEA)	✓	✓	✓	✓	<i>Refer to discussion on mitigation hierarchy in the EIA Report. Where avoidance or minimisation was not practically feasible, offsets were considered.</i>
Source: Correspondence (Letter) – 26 September 2016							

No.	COMMENT / QUERY / ISSUE	RAISED BY	uMWP-1 Raw Water			uMWP-1 Potable Water	RESPONSE
			Smithfield Dam	Tunnel	Balancing Dam		
682.	Have any relevant local Strategic Environmental Assessments been identified and if so have their recommendations been honoured?	P. Rees (DUCT)	✓				<p>According to the Guide to Strategic Environmental Assessment for Water Use in Catchments (DWAf, 2001), a Strategic Environmental Assessment (SEA) aims to integrate environmental considerations into policies, plans and programmes, and is commonly applied to concepts and activities that are broader and more complex than individual projects for which an EIA is the appropriate analysis tool.</p> <p>The uMgungundlovu DM SEA and Strategic Environmental Management Plan (SEMP) were considered as part of the EIA. The eastern portion of the project areas is located in the uMgungundlovu DM, where this SEA and SEMP apply.</p>
683.	Have the cumulative impacts of this phase of the uMkomazi Water Project been accounted for and calculated?	P. Rees (DUCT)	✓				<p>The following cumulative impacts are discussed in the EIA Report:</p> <ul style="list-style-type: none"> • Water Resource Management – <ul style="list-style-type: none"> ○ Other future dams in the system; ○ Soil erosion in the catchment; ○ Sediment regime; ○ Impacts to aquatic ecology as a result of various operational scenarios; • Socio-Economic Environment – <ul style="list-style-type: none"> ○ Positive impact on the macro socio-economic environment; ○ Increase in local population and impacts to water services; ○ The raw water pipeline routes may impact on properties that are already traversed by existing infrastructure; • Transportation Network – <ul style="list-style-type: none"> ○ Traffic-related impacts to the local road network during construction; • Biodiversity – <ul style="list-style-type: none"> ○ Existing local impacts to the biodiversity and the incremental loss of conservation-worthy species; ○ Proliferation of invasive and alien plant species; • Agriculture – <ul style="list-style-type: none"> ○ Cumulative loss of current and potential future agricultural land.
684.	Lastly we would like to place on record that we support the submission of Coastwatch.	P. Rees (DUCT)	✓				<i>Refer to responses to comments received from Coastwatch.</i>