

ENVIRONMENTAL IMPACT ASSESSMENT
Draft Scoping Report for the Proposed
Construction, Operation and Decommissioning of
a Seawater Reverse Osmosis Plant and Associated
Infrastructure in Tongaat, Kwazulu-Natal

**DRAFT
SCOPING
REPORT**



**CHAPTER 5:
ISSUES AND RESPONSES TRAIL**

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5 COMMENTS AND RESPONSES TRAIL

This chapter presents an overview of issues raised following the submission of the Final Scoping Report and prior to the release of the Draft EIA Report. Responses to these issues are provided.

5.1 INTRODUCTION

An important element of the EIA Process is to evaluate the issues raised through the interactions with authorities, the public, the specialists on the EIA team and the project proponent. In accordance with the philosophy of Integrated Environmental Management, it is important to focus the EIA on the key issues. A decision-making process has been developed to assist in the identification of key issues, based on the following criteria (refer to Figure 5.1):

1. Whether or not the issue falls within the scope and responsibility of the proposed Lovu Desalination EIA Process; and
2. Whether or not sufficient information is available to respond to the issue or concern raised without further specialist investigation.

Following the submission of the Final Scoping Report and the 21-day comment period provided on the Final Scoping Report, additional issues and/or concerns have been raised by I&APs prior to the release of the Draft EIA Report for I&AP review. Issues were sourced as follows:

- Letters and faxes - issues sent to the CSIR via fax or posted correspondence; and
- Email - issues sent to the CSIR via email correspondence.

The Appendices of the Draft EIA Report contain the detailed correspondence received. Comments received that are not relevant to or form part of this EIA Process are included in the Comments and Responses Trails below, and clear reasoning is provided as to why the comment received falls beyond the scope of this EIA. The detailed comments received are included in Appendix F of this Draft EIA Report. Section 5.2 provides a summary of the comments received from I&APs during the comment period on the Final Scoping Report and prior to the review of the Draft EIA Report. The comments submitted have been grouped according to the following categories (number in brackets indicates the number of issues raised):

1. Issues related to affected properties and land acquisition (1)
2. Issues related to noise (1)
3. Issues related to social and economic impact (3)
4. Issues related to energy (3)
5. Issues related to freshwater/wetlands (1)
6. Issues related to brine discharge, marine health and water quality (3)
7. Issues related to terrestrial ecology (1)
8. Issues related to waste management (3)
9. Issues related to EIA and Public Participation (10)
10. Issues related to technology and strategic planning (13)
11. Issues related to health and safety (4)

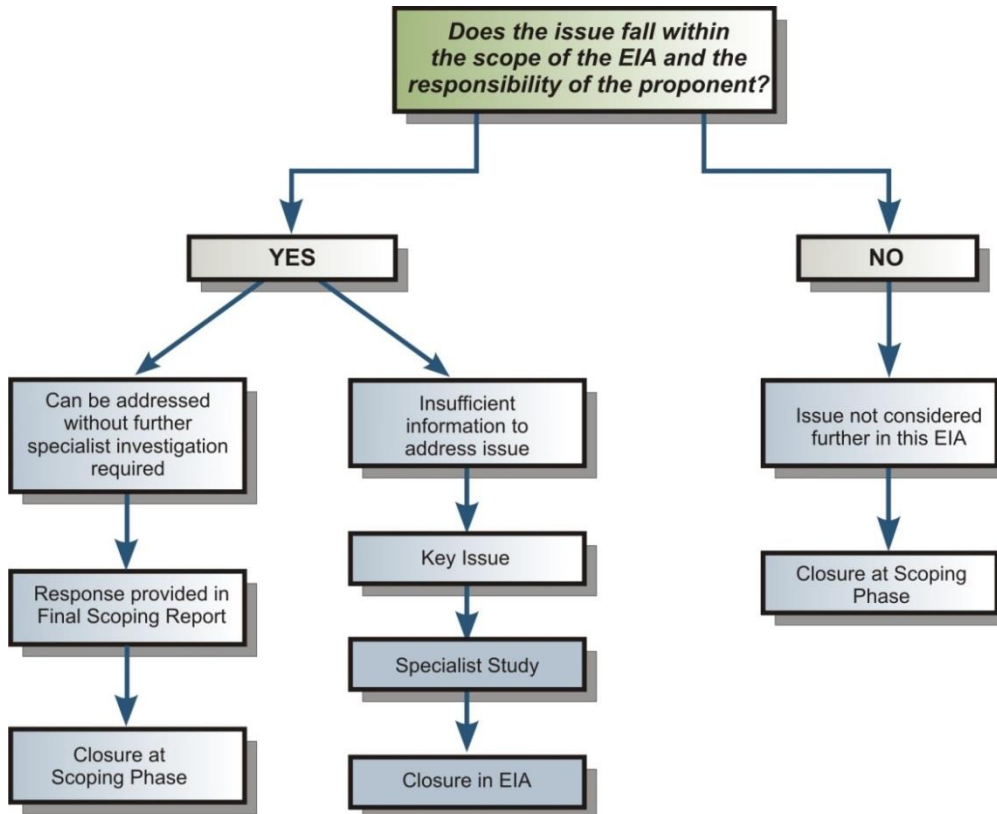


Figure 5-1 Decision-making framework for identification of key issues for the EIA

5.2 ISSUES AND RESPONSES TRAIL

The tables below summarize comments received after submission of the Final Scoping Report for I&AP review, together with a response from the EIA team. All comments received after the release of the Final Scoping Report, through meetings and written correspondence are attached as Appendix E to this report.

1. *Issues related to site location, affected properties and land acquisition*

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE (from CSIR unless otherwise indicated)
1.1	Kindly send us the property description of the application.	12/08/2015	LesleyS, DAFF, Email	<p>A description of the proposed project and surrounding environment are included in the scoping and EIA report. Also refer to Appendix B of the report for erf numbers and description of affected properties.</p> <p>Please also note that the following persons at this department are on our I&AP database and are kept informed of the project status and progress.</p> <p>Ms Mashudu Marubini, Ms Karen Moodley Ms N Sontangane Mr Jeffrey Maivha Ms Thembile Dlungwana</p>

2. *Issues related to noise and nuisance /...*

2. Issues related to noise and nuisance

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
2.1	<p>Environmental Health Department. The Health comments made in response to the Background Information Document and the Draft Scoping Report have been included in the present report. The following additional comments are submitted:</p> <p>7.2 Noise pollution. Please indicate whether the noise study will include recommendations on noise attenuation measures and architectural design parameters to abate potential noise during the construction and operational phases of the plant.</p> <p>It is not certain whether back-up generators will be installed at the plant. Should this be the case, then noise impacts from these must also be included in the study.</p>	17/06/2015	Diane Van Rensburg, eThekweni Municipality, Letter	A noise specialist study has been undertaken and appropriate attenuation measures recommended. Please refer to Chapter 12 for more details.

3. Issues related to social and economic impacts /...

3. Issues related to social and economic impacts

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
3.1	I have a home next to the property that is going to be used for this project What would happen to the value of this property? How would we be affected?	13/05/2015	Jayarani Govender, Email	Impacts on property values have been assessed as part of the Economic impact assessment study. Refer to Chapter 13 of this Draft EIA report
3.2	<p>You are probably aware that LaMRAG has been invited by Acer Africa Environmental Consultancy to a Focus Group Meeting with regards to a SIA that is being undertaken.</p> <p>We are a little uncertain at this time where this SIA fits in the EIA process that we know is still in the Draft Scoping Phase. Duncan Keal from Acer informs us that the SIA is being done for the EIA and not for the Draft Scoping Report. So please clarify this issue.</p> <p>We are also of the view that an economics specialist`s input will be required at some stage since I believe that a CBA is critical. The costing done for the previous draft scope was bare and superficial to say the least. We understand that this was a preliminary report. However, the economics are such an important matter that more attention ought to have been given to it at the earliest possible time, at least the same level of attention given to the technical report and the environmental reports.</p>	29/04/2015	B Rawheath, LAMRAG Adviser, Email	<p>The SIA was undertaken as part of the EIA process which includes a scoping phase and an impact assessment phase. Potential impacts in the various fields of studies have been assessed as part of the specialist studies. Please refer to Chapter 12 (Social Impact Assessment) of this Draft EIA report.</p> <p>A socio-economic study has been undertaken as part of this EIA as mentioned in the Final Scoping report and Draft EIA report, Chapter 1, Section 1.6 EIA Team. Also refer to Chapter 13 (Economic study) of this draft EIA report.</p>
3.3	Negative impact on our property values, No person wants to live near an industrial plant.	29/05/2015	Marlene Naidoo, Email	Impacts on property values have been assessed as part of the Economic impact assessment study. Refer to Chapter 13 of this Draft EIA report

4. Issues related to energy

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
4.1	<p><u>eThekwini Electricity Department.</u></p> <p>The Electricity Department has no objection to the plant however the construction of the pipelines would have to be sent to this Department as there are planned lines, cables and substations in this area. Further, please note:</p> <p>1.1. The applicant must consult eThekwini Electricity's main records (held in the drawing office at eThekwini Electricity Headquarters, 1 Jelf Taylor Crescent, for the presence of underground electrical services. In addition should any overhead line and/or servitude be affected, the specific permission of the Head: Electricity must be sought regarding the proposed development.</p> <p>1.2. The relocation of MV/LV electrical services, if required in order to accommodate the proposed development, will be carried out at the expense of the applicant.</p>	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Comment noted. The applicant will consult eThekwini Electricity's main records during the detailed engineering design. It is understood that the relocation of electrical services, if required, would be carried out at the expense of the applicant.
4.2	<p>Cost of electricity to run the plant</p> <p>Availability of electricity</p>	26/05/2015	Geoff D A Pullan, Email	<p>Cost of electricity and impacts on water tariffs have been discussed as part of the Social and Economic studies (refer to Chapter 12 and 13 of this Draft EIA report)</p> <p>The eThekwini Electricity has indicated that electricity supply for the Tongaat site would be available for the proposed project; however</p>

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
				written request will need to be submitted by Umgeni Water for the connection. If the supply is coincided with eThekwini's future development in the area, then the 132kV would be available within 500m from the proposed Tongaat site. Refer to Chapter 2 Project Description of this Draft EIA report
4.3	Desalination plant required cast energy power, with energy crisis at the moment, it is not energy efficient to have a desalination plant.	29/05/2015	Marlene Naidoo, Email	Please refer to response to issue 4.2.

5. Issues related to freshwater/wetlands /...

5. Issues related to freshwater/wetlands, municipal infrastructure and alternative water resources

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
5.1	<p>Environmental Planning and Climate protection department. The Final Scoping report prepared for proposed desalination plant project has been assessed and the following comments have relevance:</p> <p>This Department has reviewed the responses provided in the report to the concerns raised during the draft scoping report circulation. For most part, this Department acknowledges the responses to the issues raised and the method of incorporation into the Environmental Impact Assessment (EIA)</p> <p>The following issue has still not been addressed to the satisfaction of this Department: As previously detailed, the pipe reticulation network will cross or be in close proximity to a variety of wetland habitats in order to connect to existing infrastructure. Specifically, the La Mercy to Waterloo pipeline will cross the Mdloti Estuary (adjacent to the N2 freeway) and as such this department is still of the opinion that an assessment of the potential impact on that system must be included in the EIA. An assessment or suitably considered statement as to the potential impacts must be conducted as part of the EIA.</p>	25/06/2015	Diane Van Rensburg, eThekweni Municipality, Letter	The impacts associated with crossing of wetlands and the Mdloti estuary have been assessed as part of the Aquatic ecology study. Please refer to Chapter 8 of this Draft EIA report.

6. Issues related to brine discharge, marine health and water quality

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
6.1	<p>At this point of the environmental assessment for the operation of the proposed desalination plant Coastwatch is concerned about the effects of brine disposal, for which a Coastal Waters Discharge Permit will be required should environmental authorisation be granted. For the purpose of this Permit marine dispersal studies will be required and it does not seem that the Marine Ecology specialist study (section 6.5.3) will address this aspect.</p> <p>Coastwatch believes that all studies relevant to the construction and operation of the plant need to be considered as part of a single assessment and Terms of Reference for all relevant studies provided.</p> <p>Within the eThekweni precinct Coastwatch works in collaboration with WESSA, Durban Branch, and Birdlife Port Natal and the organisations are included in this correspondence.</p>	8/06/2015	Carolyn Schwegman, Coastwatch KZN, Email	Numerical modelling was undertaken of the near-field dilution of the brine as it exits the diffuser ports, and the far-field dispersion modelling (Aurecon, 2015). For the latter, a three dimensional hydrodynamic model was set up of the Tongaat site. The model was calibrated against site measurements, including 12 months of current measurements in 17 m water depth. Results have been considered in the Marine ecology specialist study. Please refer to Chapter 6 of this Draft EIA report for further details.
6.2	We also need to know further about your Marine Environmental Specialist. Who he or she is and what phase is this specialist involved with. Is there a focus group meeting with the marine and coastal environmental specialist? Will this be an independent EAP?	29/04/2015	B Rawheath, LAMRAG Adviser, Email	<p>The marine specialist is Dr Andrea Pulfrich from Pisces Environmental Services (please refer to the Draft EIA report, Chapter 1, Section 1.6 EIA Team for specialists details). Dr Pulfrich is an independent specialist. All specialists are signing declarations of independence, which will be included in the draft EIA report.</p> <p>The specialist study has included all issues (within the scope of this EIA), raised during the public meetings and during the commenting</p>

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
				periods on the draft scoping report. There are no focus group meetings planned with the specialists. The outcomes of the specialist studies will be presented during the next public meeting. Please refer to Chapter 6 for further details on the Marine specialist study.
6.3	Besides, there are a few other issues relating to the specialist investigation on the marine impact that we need some clarity on.			Refer to response to issue 6.2

7. Issues related to terrestrial ecology /...

7. Issues related to terrestrial ecology

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
7.1	<p>Kindly find attached Comments for the Final Scoping Report (FSR) for the Proposed Construction, Operation and Decommissioning of 150ML/day Sea Water Reverse Osmosis (SWRO) Plant and Associated Infrastructure at Tongaat Kwazulu Natal. DEA REF NO: 14/12/16/3/3/2/652.</p> <p>“The Department of Agriculture, Forestry and Fisheries (DAFF) appreciate the opportunity given to review and comment on the DSR in the 29th May 2015 for the above mentioned project. The department acknowledges that the concerns and requirements outlined in the comments previously issued dated 19/05/2014 and 29/10/2014 have been incorporated and addressed in the FSR. The response to these comments indicate that “ the presence of species of conservation significance and the potential impacts of the proposed development on nearby natural coastal and/or dune forest(s) will be assessed further as part of the Terrestrial ecological study (TES)”. The summary of the TES provided in the FSR indicates that affected environments within the project area include Coastal dune and beach environment, Furthermore, in some area secondary vegetated areas show successional return to a forest structure. These factors will be further investigated in the Draft Environmental Impact Assessment report. Therefore, the Department will further comment upon receipt and review of the DEIAR</p>	08/06/2015	Mmbudzeni Patience Matamba, DAFF, Email and letter	<p>Noted.</p> <p>Refer to Chapter 7 Terrestrial ecology study for further details.</p>

8. Issues related to waste wastewater and stormwater management

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
8.1	Durban Solid waste. This department has no requirements for this proposal	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Noted.
8.2	Coastal, Stormwater and catchment management. This Department has no objection	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Noted.
8.3	eThekwini water and sanitation department. This department can only provide a comment once the sewer disposal plant details have been provided	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Noted.

9. Issues related to EIA and Public Participation /....

9. Issues related to EIA and Public Participation

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
9.1	<p>We are still concerned about the independence and transparency issues. CSIR and Umgeni water are both state funded institutions. We do not question your integrity however in a court of law, not only must an entity be independent in all its actions but also seen to be so. How do you propose to ensure the credibility and integrity of your investigations and assessments?</p> <p>We notice that the previous Project Managers were dismissed rather abruptly. CSIR has not yet revealed the reasons for this. Hence I believe we are justified in questioning CSIR's transparency</p>	29/04/2015	B Rawheath, LAMRAG Adviser, Email	<p>The CSIR was appointed as the independent environmental assessment practitioner (EAP) to conduct the EIA following a competitive tender process as was released by Umgeni Water (Tender No. 2012/206). It should also be noted that in terms of Regulation 17 of the EIA Regulations, the EAP has no business, financial or other interest in the proposed activity other than fair remuneration for work performed, and that there are no circumstances that compromise the objectivity of the EAP. As previously mentioned, the EAP is an individual, not an organisation. Therefore, whilst there exists an employer/employee relationship between the CSIR and the EAP, the EAP was appointed as such due to his being independently certified and duly registered EAP, and not the CSIR. In addition, the EAP has signed a declaration of independence as an EAP and his signing of such a declaration is supported by the fact that he is certified and registered with EAPASA as a qualified EAP in his personal capacity.</p> <p>The previous project managers have not been dismissed. They requested a transfer from our group and have moved to another department within the CSIR. This was announced at the last public meeting.</p> <p><i>From Umgeni Water:</i> Umgeni Water is a parastatal falling under the Department of Water and Sanitation. Being a parastatal the organisation must be self-sufficient and in that way autonomous. Umgeni Water is, therefore, not a "state funded entity".</p>

9.2	<p>We have been communicating with you for a while now. We are still not confident that our concerns and objections are being heeded. Before we move this process forward please find a way to address these matters that are important to us. We also believe that the authorities from whom the proponents seek approval will regard them as important also.</p> <p>We look forward to an open and frank discussion with CSIR on the above concerns and several more. When can we do this?</p>	29/04/2015	B Rawheath, LAMRAG Adviser, Email	<p>All I&APs concerns (within the scope of this EIA) are duly noted and have been incorporated in the issues and responses trail (Chapter 5 of the Draft EIA Report). Note that some concerns (e.g. alternative sources of water and concerns related to strategic planning and municipality infrastructure) are unfortunately out of the scope of this EIA which only covers the proposed desalination plant. It is recommended that those concerns be taken up directly with the relevant authorities and that LaMRAG present them alternative ways of ensuring adequate water supply for residents.</p> <p>All issues falling within the scope of this EIA have been (as part of the Scoping Report) or will be (as part of the EIA report) responded to. Please keep in mind that the proposed desalination plant is only one option that Umgeni is considering for bulk water supply. The preferred option remains the uMkhomazi Water Project.</p> <p>A public commenting period will be organised as part of the draft EIA report, where all queries will be noted and answered.</p>
9.3	<p>Thank you for the reply. It is much appreciated.</p> <p>However, I would rather discuss some of these directly with you. Please schedule an appointment by telephone for a suitable time at your earliest convenience. I believe that the residents of the affected areas have some justification for distrusting the Proposers of the Desalination facility. This issue has not been dealt with at any of the meetings nor is it properly addressed in the draft scope.</p>	04/05/2015	Betty Rawheath LAMRAG Adviser, Email	<p>The draft scoping report for the proposed desalination plant at Tongaat was released on 10 September 2014 for public comment. Thereafter, in February 2015, a letter was released conveying that a second public commenting period on the draft scoping report was provided, to allow for further engagement with the I&APs. This second commenting period was closed on 24 March 2015. Note that the draft scoping report had not changed from the first to the second comments period. The time provided for the public to comment on the draft scoping report was therefore well in excess of the requirements specified in the EIA Regulations.</p>

				<p>From a public participation perspective (and in accordance with the requirements as set out in the 2010 NEMA EIA Regulations and its amendments), all the legal requirements in terms of public announcement and review of the draft and final report have been met.</p> <p>Our commitment as the EAP is to conduct a credible and legitimate process in terms of the EIA Regulations. If there are issues of "distrust" between LaMRAG and the applicant or municipality which are beyond the scope of this EIA process, these are outside the responsibilities of the EAP and the EIA process.</p> <p>We look forward to further engagement with LaMRAG at the designated public participation periods in the future and commit to addressing all project related concerns to the best of our ability in line with our duties and responsibilities.</p>
9.4	<p>Our position must be made clear for the record whether or not CSIR engages with our concerns. It is particularly important that the authority to whom the final EIR is submitted for consideration is made aware of the challenges we as an under - resourced civic body encountered in dealing with the power of a Mega City such as eThekweni and a major para - statal body that is Umgeni Water. Hence the lack of balance of power is a pertinent issue when people challenge bad development proposed by the state or corporations. We need to document these here and now lest at some stage later it is argued by any party that these were not raised in good time. As an environmental legal adviser I have to ensure that our organisation works not only with narrow</p>	11/05/2015	<p>Betty Rawheath LAMRAG Adviser, Email</p>	<p>Please refer to response to issue 9.3 above.</p> <p>The final scoping report has been released for Public review on 15 May 2015 for a 21 days commenting period. All comments (within the scope of work of this EIA) received during this commenting period have been incorporated in this draft EIA report.</p>

	<p>environmental regulations but broadly under constitutional legal principles. It will be appreciated if this conversation is embodied in the appropriate documentation.</p> <p>That said it will be appreciated if the Scoping Report that is about to be released be emailed to us at your earliest convenience.</p>			
9.5	<p>Please find La Mercy Action Group's Response form to the Scoping Report and a Power Point Document of a summary of the objections.</p> <p>We confirm that we oppose the desalination bid by Umgeni water and call for the immediate halting of the EIA process.</p>	07/06/2015	Betty Rawheath, LAMRAG Adviser, Email	Noted
9.6	<p>La Mercy Residents Action Group has opposed this development from the beginning and will continue to do so as long as it takes. We have put out a series of documents that explain our objections. Some of these are contained in the Scoping Report.</p> <p>A summary is contained in this attachment which is a Power Point Presentation Paper delivered at an Environmental conference last year.</p> <p>The main points we want to highlight here are the following.</p> <ul style="list-style-type: none"> The CSIR is a Public Funded Company. It will not be perceived as objective in this matter because 	07/06/2015	B Rawheath, LAMRAG Adviser, Email	<p>Comment noted.</p> <p>Please refer to response to issue 9.1 above.</p>

	<p>it was appointed by Umgeni Water which is also a Public funded body. We have reason to believe that the two previous project managers Mr. Moodley and Mr.Banoo both withdrew for this reason. The opposers of the development do not feel confident that only the most independent investigators will be appointed to investigate the feasibility of the development as CSIR may be constrained to favour the Proposer which will be paying for the EIA and EIR. Umgeni Water was not open and transparent when the process was started to enable the affected communities to participate when the process was in its planning stages.</p>			
9.7	<p>The following organisation should be involved:</p> <p>Desainagar Rate Payers association Seatides Rate paters association</p>	29/05/2015	<p>Marlene Naidoo, Email</p>	<p>These I&APs have been added to the database</p>
9.8	<p>The following organisations should be involved:</p> <p>Ethekwini Municipality Engineering services, Environment, Energy , Planning, Housing Economy and Tourism</p> <p>KwaZulu Natal Human Settlements.</p>	07/06/2015	<p>B Rawheath, LAMRAG Adviser, Email</p>	<p>These I&APs are already on the database and have been kept informed of the EIA process. Comments have been received from all of these departments. Refer to issues raised via Mrs Diane Van Rensburg, eThekwini Municipality.</p> <p>This I&AP has been added to our database.</p>
9.9	<p>We had the pleasure of having Dr Hugo van Zyl in our office yesterday discussing this proposal. It was very informative, & also very entertaining as a number of my brokers live that side of Ballito. Would you be kind enough to include me in your database</p>	29/05/2015	<p>Cindy Bogan</p> <p>Branch Manager - Wakefields</p>	<p>This I&AP has been added to the database.</p>

	of interested parties when you send out information or updates? We sell quite regularly in that area & surrounds, so it's good for us to have the proper info when dealing with clients, especially if it goes ahead. People are only scared of what they don't know, so it would help us tremendously to be as knowledgeable as possible should prospective clients enquire.		Ballito, Email	
9.10	Would you be able to send me a copy of the scoping report for the proposed Desalination plant at Tongaat? I was a hydrologist before I became an Anglican priest but I still have an interest in my local water resource management issues.	06/07/2015	Revd Peter Houston Parish of Umhlali Diocese of Natal (Anglican), Email	The link to the Final scoping report was sent to this I&AP and his name was added to our I&AP database.

10. Technology and strategic planning/....

10. Technology and strategic planning

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
10.1	<p>The proposed reverse osmosis process is very expensive to install and operate. Whereas it works technically in that it purifies water it produces very little compared with the volume processed, the majority being discharged as effluent.</p> <p>A much better process in that of electrodialysis. Recent developments of this relatively new process claim that it is much cheaper to install and operate and produces a much higher percentage of pure water and much less effluent.</p>	28/05/2015	Allan Childs, Email	<i>From Umgeni Water:</i> Reverse Osmosis converts approximately 45% of the intake water to potable water. This process is the most widely used, worldwide, to convert seawater to potable standards. There are a number of other processes that can desalinate seawater, of which electrodialysis is one of them, however, Reverse Osmosis is still considered the most viable option for large scale (greater than 50MI/d) desalination.
10.2	<p>Environmental Planning and Climate protection department. No further comment received.</p> <p>Parks Department, Land use management Branch, Economic Development Unit, eThekwini Transport Authority, Geotechnical Engineering Branch: No further comment received.</p>	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Noted.
10.3	<p>Framework Planning Branch. The Framework Planning Branch has assessed the proposal and raises no objections as the proposed Tongaat desalination facility would resolve the bulk water capacity imitations or shortages in the Northern area of the municipality</p>	17/06/2015	Diane Van Rensburg, eThekwini Municipality, Letter	Noted.
10.4	Alternative of a dam on Illovo River	26/05/2015	Geoff D A Pullan, Email	<i>From Umgeni Water:</i> The Lovu River is on the KwaZulu-Natal South Coast and a dam / treatment plant at this position would not be able to supply the North Coast (distances would make the projects excessively expensive). In addition, the yield from the Lovu River

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
				would not support a plant of 150MI/d capacity.
10.5	Concerns were relayed to Mareike Stragli of Acer Africa Consultants at meeting on Wednesday 29 April. Main concern: nor enough alternative considered. No 1 No dam on Tugela River	06/05/2015	K Ganesh, Private, Email	<p><i>From Umgeni Water:</i> A number of alternatives to the proposed desalination plant have been considered. As previously noted, the Spring Grove Dam was constructed as part of an inter-basin transfer scheme between the Mooi River and the Mgeni Catchment to augment the water resources in the Mgeni. However, with the current growth in water demand, even this scheme will soon not be enough to provide the required assurance of supply to Durban, Pietermaritzburg and surrounding areas.</p> <p>The Department of Water and Sanitation's Reconciliation Strategy Study for the Kwazulu-Natal Metropolitan Coastal Areas indicates that even with further augmentation of the Mgeni System (including the implementation of Spring Grove Dam and the planned Mooi-Mgeni Transfer Scheme Phase 2) by an additional 137 MI/day (50 million m³/a), the supply of water in future will still not exceed the required 99% assurance of supply. Therefore, alternative schemes such as the proposed Mvoti Dam and uMkhomazi Water Project are also being considered. Phase 1 of the proposed uMkhomazi Water Project is planned to secure an additional 600 MI/d (220 million m³/a). This involves the potential development of Smithfield Dam located along the central reaches of the uMkhomazi River, with a storage capacity of 250 million m³ (250 000 MI).</p> <p>The capital cost for the proposed Smithfield Dam and associated infrastructure would be about R17 billion and the scheme would take many years to construct. Therefore Umgeni Water identified a 150 MI/day sea water desalination plant in the Tongaat area using RO technology as a possible short-medium term alternative that could be implemented fairly quickly to meet the growing water demand and</p>

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
				<p>ensure the sustainable economic development of the region. This project would supply water to Umgeni Water's North Coast Supply System and to some of the areas supplied by eThekweni's Northern Aqueduct by reversing the flow from Waterloo Reservoir.</p> <p>The Department of Water and Sanitation have a number of proposals for constructing dams on the uThukela River. However, the size of this river makes the construction of dams very expensive (they would have to sustain really large flood conditions). The construction of a dam on the uThukela River would also take at least fifteen years to plan and construct.</p>
10.6	Recent reports (North Coast Courier 5 June 2015) that Umgeni Water failed to deliver on its promise of 8 to 12 million litres of water per day to Hazelmere Dam by means of an emergency pipeline costing R38million, confirms our fears that it will not be capable of undertaking a R20Billion desalination project in the near, or midterm. In the current depressed state of our economy, a substantial budget allocation to fund a project that is currently unlikely to be beneficial to the affected communities is much too risky for the taxpaying community.	07/06/2015	B Rawheath, LAMRAG Adviser, Email	<p>According to Umgeni Water (2015), parts of the Umgeni Water operational area are currently in a state of drought. The affected areas are the north of the eThekweni Municipality, parts of the iLembe District and the Middle South Coast. In the north, the level of the Hazelmere Dam has been decreasing and is at an extremely low level. In the south, levels of two of the three dams that serve the Middle South Coast (i.e. the Nungwane and Umzinto) are currently below 50% and the overall system storage of the South Coast System is below 50%. In order to ensure that the amount of water that is available in Hazelmere Dam lasts until the next rains, Umgeni Water has reduced the production of potable water, and water rationing and 30% mandatory restrictions have been applied by the relevant municipalities. In addition, Umgeni Water has implemented an emergency scheme that transfers water from the uThongathi River to Hazelmere Dam to augment supply in the dam. Measures put in place have been effective in slowing down the drop in the level of the Hazelmere Dam (Umgeni Water, 2015). In the south a 25% restriction has been gazetted and Umgeni Water has implemented a temporary emergency scheme to pump water from the Mpambanyoni River to E</p>

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				<p>J Smith Dam to augment supply. The current levels of the dams indicate the serious need for water within the region, and therefore Umgeni Water is considering the proposed desalination plant as a possible short-medium term alternative to assist with the water shortages. Refer to Chapter 1, Section 1.4 For additional details on the Needs and Desirability of the project.</p> <p><i>From Umgeni Water:</i> Umgeni Water consistently transfers 8Ml/d (maximum capacity of the scheme) between the uThongathi River and Hazelmere Dam with an average transfer of 6Ml/d since inception. This scheme is reliant on flows in the uThongathi River to ensure full supply operations.</p> <p>The total capital cost of the desalination project proposed is just greater than R4 billion and not R20 billion as indicated by Ms Rawheath.</p>
10.7	In an editorial page report by a councillor and eThekweni executive member, Z Mncwango (Sunday Tribune 31 may 2015) it is noted that the municipality is due to spend R4.1billion on bulk water purchases. Of this 38 percent is lost due to bad planning of the maintenance budget and massive under spending on sanitation and solid waste.	07/06/2015	B Rawheath, LAMRAG Adviser, Email	<p><i>Noted.</i> However this issue falls out of the scope of this EIA which covers the construction and operation of a desalination plant.</p> <p><i>From Umgeni Water:</i> As a point of clarity, the 38 percent indicated here, and presented by eThekweni at the Public Meeting, refers to Unaccounted for Water and not water leaks. Water leaks make up a component of this water whilst metering inaccuracies, illegal connections etc make up the remainder.</p>
10.8	According to "Corruption Watch" a feature column in the Sunday Times dated 31 May 2015, " Among other important obligations the board of directors of a public entity , a parastatal such as Eskom, SABC, Telkom etc." and Umgeni Water (our emphasis) must take effective and appropriate steps to prevent	07/06/2015	B Rawheath, LAMRAG Adviser, Email	<p><i>Noted.</i> However this issue falls out of the scope of this EIA which covers the construction and operation of a desalination plant.</p> <p><i>From Umgeni Water:</i> Umgeni Water must plan to provide bulk potable water to its customers. Without this planning the sustainability of supply to consumers would be compromised. The</p>

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	fruitless and wasteful expenditure – defined in the Public Finance Management Act as “expenditure which was made in vain and would have been avoided had reasonable care been exercised” .			growth in demand in areas along the north coast means that projects will have to be implemented to augment the current sources of water and these cannot be done without capital cost implications. Umgeni Water, together with the Department of Water and Sanitation, consider all viable options for bulk water augmentation and will implement the one with the least cost, time and environmental implications.
10.9	Section 195 of the Constitution requires public enterprises to promote the efficient and economic use of resources. La Mercy Action group objects to the construction of a desalination facility in our residential space because this will be wasteful expenditure. Local government , Umgeni Water and consumer communities must work together to find cost effective and environmentally considerate alternative ways to meet the demand for fresh water instead of rushing headlong into proposals, investigations, assessments and reports that will long before approval stage cost the taxpayer a huge sum of money and resources. We are of the view that this EIA process must be halted immediately to avoid running up further costs.	07/06/2015	B Rawheath, LAMRAG Adviser, Email	Refer to response to issue 10.6 and 10.8 above. <i>From Umgeni Water:</i> The cost of feasibility studies and environmental impact assessments is a very small fraction of the total cost of infrastructure that would be developed to augment the areas. Umgeni Water feels that it is better to undertake proper planning, albeit at this cost, to ensure that the correct solution is implemented at the lowest overall project cost.
10.10	An urgent priority for the province should be the proper housing of the large number of people living in informal settlements around the area of the proposed development. Finding residential space for housing developments in a residential zone makes more economic sense than trying to convert a residential area into an industrial zone to put up a desalination facility that has no economic value for	07/06/2015	B Rawheath, LAMRAG Adviser, Email	<i>Noted.</i> However this issue falls out of the scope of this EIA which covers the construction and operation of a desalination plant.

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	this community and still leaves people without shelter and sanitation.			
10.11	<p>LaMRAG is and has been since the outset opposed to Umgeni Water's proposal to install and operate a Desalination plant in Tongaat at La Mercy Beach. Our comprehensive objections are on record but if the process advances to the next phase we will be obliged to appoint our own independent consultants to investigate the various points of objections and submit reports accordingly.</p> <p>However, our thinking is and we have maintained that the whole EIA process is an unnecessary expense at this stage and should be halted now rather than later. All the directly involved entities, CSIR, Umgeni Water, eThekweni and Ilembe are funded by the public and should be processing EIAs responsibly and without spending tax monies wastefully. The Scoping report clearly indicates at least latterly that Desalination is only an alternative option proposal to various other water supply projects that are already being undertaken: one or two are likely to be supplying fresh water within the next year or two. It seems too that for the short term the Hazelmere Dam Raising project is being resumed.</p> <p>In recent meetings Umgeni Water is on record having said that Desalination is only an option and a long term one if at all it is approved. Under the</p>	26/05/2015	B Rawheath, LAMRAG Adviser, Email	<p><i>Noted.</i></p> <p>Please refer to response to issue 10.5 with regards to the Need and desirability of the proposed project.</p> <p><i>From Umgeni Water:</i> Umgeni Water, together with the Department of Water and Sanitation, is investigating a number of options for supply to the KwaZulu-Natal North Coast. The process of undertaking detailed feasibility studies and environmental impact assessments is an onerous one and hence, we undertake these investigations of a number of options at the same time. It is true that the uMkhomazi Water Project would be the preferred options to supply the area, however, it would have a minimum R17 billion cost and its own environmental considerations it there is therefore a chance that the project might encounter a fatal flaw. If this were to be the case then the desalination plant would be a viable alternative.</p>

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	<p>circumstances it is not cost effective to fully investigate and explore the ramifications of the feasibility of the proposal at every level at this time. This is a highly complex, intensive and extensive investigation without similar precedent anywhere else in the world.</p> <p>It is unrealistic to hope that the region's economy which is in the throes of recession to cope with funding projects that will cost taxpayers Billions. The last census shows clearly that most people living here are impoverished. They will not benefit from this facility.</p>			

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10.12	<p>Why should the EIA project proceed any further and seek certification and approval from so many entities at great cost when the likelihood of it being approved is minimal for implementation in the short or medium term? If approval is given now and implementation does not take place soon, the process will have to begin afresh at further cost than as the EIR would have expired. We are of the view that if the process is halted now until all other water supply projects have been completed then reassessment and re-evaluation of the proposal may be appropriate.</p> <p>If the EIA is finally approved by the authorities our communities will appeal against the decision. (The trail of objections in the Scoping Report refers) The matter will be tied up in court or arbitration for some time.</p> <p>In order to save costs all round LaMRAG recommends that the process be halted at this stage after comment on the Scoping Report.</p>	26/05/2015	B Rawheath, LAMRAG Adviser, Email	<p><i>Noted.</i></p> <p>The likelihood of this project to be approved and the final decision will be taken by the competent authority (in this case National DEA) once the Final draft EIA report has been submitted for decision making. This decision will be based on the EIA outcomes and comments/issues raised by the public.</p>
10.13	The following organisation should be involved: eThekweni municipality	26/05/2015	B Rawheath, LAMRAG Adviser, Email	The various department of eThekweni municipality are already on our database and have commented on the draft and final scoping report via Mrs Diane van Rensburg.

11. Health and Safety issues

NO	ISSUES RAISED	DATE	COMMENTATOR	RESPONSE
11.1	<p>Environmental Health Department. The Health comments made in response to the Background Information Document and the Draft Scoping Report have been included in the present report. The following additional comments are submitted:</p> <p>7.1 Water quality. Please include the SANS guidelines 241-1 and 2-2011 under the National and International Guidelines heading in Chapter 4 page 4-13.</p>	17/06/2015	Diane Van Rensburg, eThekweni Municipality, Letter	<i>Noted.</i> Water quality guidelines have been included in Chapter 2.
11.2	Chemicals need to be stored at the plant. Hazardous to us living in the area. Pollution emitted by the plant.	29/05/2015	Marlene Naidoo, Email	<p>In general, the desalination plant does not use chemicals that are highly volatile and can generate unpleasant odours. The chemicals that will be used are widely used for water treatment in conventional water treatment times and are stored in tanks with containment around them designed to retain 110 % of the total tank content. Sodium hypochlorite (bleach) in liquid solution could cause odours emissions of chlorine in the case of major spill or delivery accident. Handling and application of this and other chemicals is such that they do not cause odours under normal operational conditions. Therefore there will be no release of emissions/corrosive agents to the atmosphere and hence air quality study has been deemed unnecessary.</p> <p>Refer to Chapter 2, Section 2.4.5.4 for further details on Chemical management.</p>

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11.3	Disaster Management – No objection from Disaster management	17/06/2015	Diane Van Rensburg, eThekweni Municipality, Letter	<i>Noted.</i>
11.4	Fire safety. This department has no objections to the above proposal provided that building plans are submitted for approval.	17/06/2015	Diane Van Rensburg, eThekweni Municipality, Letter	<i>Noted.</i>