Minutes of the Senior Officials Information Sharing Session and Site Visit

DATE AND TIMES:18 March 2014, Sharing Session: 09H00 – 11H00, Site Visit: 12H00 – 16H00

Venue: Calderwood Hall, Boston, KwaZulu-Natal

	Action (s)
1. WELCOME	
Mr Kobus Bester, the Project Manager from the Department of Water Affairs (DWA), welcomed all officials to the Senior Officials Information Sharing Session (SOISS).	
2. ATTENDANCE AND APOLOGIES	
2.1 ATTENDANCE	

The following officials (alphabetical by surname) attended the meeting (an attendance list is attached as **Annexure A).**

Name	Organisation	Designation
Sayed Abdulla	Dept of Water Affairs	Director: Eastern Cluster NWRS
Mark Anthony-Williams	Dept of Water Affairs	Chief Director: Infrastructure Development
Danie Badenhorst	AECOM	Team leader: Engineering Investigations: Module 1
Kobus Bester	Dept of Water Affairs	Chief Engineer: NWRP Options Analysis
Neal Bodger	Eskom Holdings SOC Limited	Surveyor and Line Designer
Lungile Cele	Ugu District Municipality	General Manager: Water Services (Acting)
Amal Doorgapershad	Knight Piésold	Study Leader: Module 3
Cyril Gamede	Umgeni Water	Chief Executive Officer
Mike Greatwood	Msunduzi Local Municipality	Manager: Water Services Authority (Acting)
Donavan Henning	Nemai Consulting	Study Leader: Module 2
Livhuwani Mabuda	Dept of Water Affairs	Chief Director: Integrated Water Resources Planning
Manisha Maharaj	Dept of Water Affairs	Deputy Director: Regulation Planning
Notha Maphumulo	Ilembe District Municipality	Technical Manager (Acting)
Kevin Meier	Umgeni Water	Planning Services Manager
Deborah Mochotlhi	Dept of Water Affairs	Deputy Director General: Planning and Information
Salona Moodley	Dept of Water Affairs	Engineer: Options Analysis (East) IWRP
Ednick Msweli	Umgeni Water	General Manager: Operations
Dumisani Nyathi	Dept of Water Affairs: KZN Region	Deputy Director: Strategic Support
Hermien Pieterse	AECOM	Study Leader: Module 1

			Action (s)
Bongi Shinga	ACER (AECOM Team)	Public Relations Officer	
Ashley Starkey	Dept of Water Affairs	Chief Director: KZN Regional Office	
Frank Stevens	eThekwini Metropolitan Municipality	Deputy Head: Water & Sanitation	
Gavin Subramanian	Umgeni Water	Planning Engineer	

2.2 APOLOGIES

Frikkie Brooks	KZN Office of the Premier	Deputy Director General: Planning Commission
Mrs AN Dlamini	Sisonke District Municipality	Municipal Manager
Steve Gillham	Umgeni Water	General Manager: Engineering & Scientific Services
Thami Hlongwa	Umgeni Water	Chief Financial Officer
Angela Masefield	Department of Water Affairs: KZN Region	Director: Regulation
Neil McLeod	eThekwini Metropolitan Municipality	Head: Water & Sanitation
Sibusiso Sithole	eThekwini Metropolitan Municipality	Municipal Manager
Neil van Wyk	Department of Water Affairs	Chief Engineer: NWRP Option Analysis (East)

2.3 OFFICIALS WHO CONFIRMED ATTENDANCE BUT DID NOT ARRIVE AT THE SOISS & SITE VISIT

Noluthando Magevu	KZN CoGTA	General Manager: Municipal Infrastructure
Khuthalile Mahlaba	KZN CoGTA	Manager: Basic Services
Bheki Makwakwa	Sisonke District Municipality	Executive Director: Infrastructure Services
Njabulo Mchunu	Umgungundlovu District Municipality	Chief Financial Officer

3. OUTLINE OF THE INFORMATION SHARING SESSION AND ITINERARY FOR SITE VISIT

An outline of the information sharing session was presented to the officials.

4. OBJECTIVE OF THE INFORMATION SHARING SESSION

The purpose of this meeting and site visit was to provide detailed information on the proposed uMkhomazi Water project to relevant municipalities and key water users who will ultimately be the beneficiaries of the uMWP. Furthermore, decision makers from various spheres of government were given the opportunity to engage with relevant stakeholders.

The Information Sharing Session was followed by a site visit to key components of the uMkhomazi Water Project. The objective of the site visit was to present progress on the feasibility study to key stakeholders (including officials from DWA, directly affected District and Local Municipalities or Water Service Authorities, and Umgeni Water) against the backdrop of the actual surroundings where the project is proposed to be implemented.

	Action (s)
5. PRESENTATIONS AND DISCUSSION ON PROJECT BACKGROUND, MOTIVATION, DESCRIPTION AND INFORMATION	
5.1 PROJECT BACKGROUND AND INFORMATION	
Mr Kobus Bester provided comprehensive information on the project background and motivation. The information presented is summarised in **Slides 3 – 11** (Annexure B). The following comments were raised and discussed.	
(a) Mr Starkey asked about the presence of wetlands in the study area. **Response**: Mr Badenhorst explained that existing wetlands are located in the Smithfield Dam area and at the New Mbangweni Dam at the end of the tunnel. Structures are not located in these areas. Mr Henning confirmed that a Wetland Delineation will be undertaken as part of Wetland Assessment for the EIA.	
(b) Clarity was required on the purpose of the development of the Bulwer Dam and/or Water Supply Scheme. **Response**: Mr Meier explained that the feasibility of the Bulwer Scheme has been completed and that it is being implemented, not necessarily the dam, but certainly river abstraction and supply to some areas are being constructed by the Harry Gwala District Municipality (DM). Mr Meier indicated that within the next few weeks, Umgeni Water will be going to the Harry Gwala DM to identify the exact extent of the supply areas. Umgeni Water knows that Harry Gwala DM's plan is to implement the scheme to the full extent but are unsure at this stage of the contracts that will be put out for reticulation.	
(c) Mr Maphumulo indicated that it would be important for the local communities to have a good understanding of the entire project, otherwise there could be issues when local communities realise that water is being taken away from their areas whilst their water requirements have not been addressed. It will also be important for the Department of Water Affairs and study team to ensure that there is adequate and proper social facilitation. **Response:** Comment noted, with thanks.	
5.2 PROJECT DESCRIPTION	
Mr Danie Badenhorst provided information on the proposed Project Layout and Description. His presentation covered the following components of the module 1 part: • The proposed Smithfield Dam and appurtenant works, • the proposed Umkhomazi – Umlaza tunnel • the proposed Umlaza to the Water treatment plant pipeline as well as • the proposed Langa Dam. The information presented is summarised in **Slides 12 -35** (Annexure B).	

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(a) Mr Greatwood asked how much power will be required for the Water Treatment Plant and how much can be generated through the Baynesfield Hydropower? **Response**: A supply with capacity 6 500 kW is ultimately required for the Water Treatment Works. Phase 1 hydropower generation capacity is estimated at 2.7 MW.	
(b) Will the tunnel be lined with pre-cast concrete? **Response**: Yes, despite the fact that it was estimated that some 40% of the length of the tunnel will be bored in good quality dolerites and 60% in less good quality shales it is assumed that pre-cast concrete liners will be required for the full tunnel length. This assumption provides an opportunity for savings when it may be found during construction that the dolerite part of the tunnel may not require lining. Pre-cast concrete liner yards are planned to be established at the proposed Langa Dam reservoir and the Smithfield dam reservoir. Aggregate sources have been considered. Mr Bester added that DWA costed for the worst-case scenario. They have allowed for lining throughout the tunnel. There could be potential savings if drilling indicates that some areas may not require liners, this aspect should be addressed during detail design.	
(c) Mr Starkey checked that the team is aware that there are some major licensing requirements that will need to be factored into the planning, e.g. wetlands, river crossings, pipe-jacking, weir installations, etc will need to go through licensing applications and/or fulfil the necessary permit requirements. Some lessons have been learned from Spring Grove Dam. Importantly, the DWA Regional Office should attend to these licensing requirements as soon as possible. **Response**: Mr Bester confirmed that the EIA process has identified all the required permits and license applications. As such, Water Use License Applications will be addressed as part of the EIA. Also, groundwater issues will be addressed once final designs are available because drilling will be up to 700 m (average about 350 m) underground, which is expected to impact on groundwater resources.	
(d) Ms Mochotlhi indicated that, based on previous experience, communities always complain about grass being greener on the other side, i.e. good things passing them by. Major infrastructure needs to take into account the services of the neighbouring communities. She requested the team to ensure that communities surrounding the dam are well catered for (has everyone been included and their needs addressed?). **Response**: Mr Bester explained that there are several communities in the areas around Smithfield Dam. Near Mpendle, there are areas where there are no homesteads. It should be noted that water distribution and use of water by the districts is planned in the IDPs of various municipalities. However, DWA realises that some of these IDP projects do not materialise. From a water resource point of view, the Department of Water Affairs plans to allocate a certain volume of water for the surrounding communities, although this will only be available after 2023. If the municipality does not address water provision in the next 10 to 20 years, DWA can build a water treatment plant at the dam site and then distribute water to the local communities. Mr Bester indicated that what needs to be done is to take the Bulwer Scheme, which is shown on	

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	slide 22 and dovetail it with the DWA desktop study and establish the most cost effective scheme to supply water to the local communities. If the Bulwer Scheme is able to supply water to the neighbouring communities before construction commences, then people will be served. If this cannot be done, then the uMWP will need to make sure that local communities are catered for.	
	Additional discussion points: Mr Subramanian noted that Umgeni Water has the capacity and desire to implement certain schemes. Opportunities exist to use available resources to service the surrounding communities (and/or develop a project to make it work, either through Umgeni Water or by the Water Service Authorities). He referred to a scheme in Spring Grove which supplies the surrounding communities. The water has been made available from Umgeni Water; however, the direction for implementation needs to come from the Water Service Authority. Mr Meier explained that Umgeni Water did the feasibility study on the Bulwer Bulk Water Supply Scheme. However, the Harry Gwala DM decided that they would like to implement the scheme without Umgeni Water's assistance. However, Umgeni Water has the capital available for approximately six years.	
(e)	Ms Mochotlhi reminded everyone of the basic and fundamental principle which is "we are one government". Secondly, we do know that most of our municipalities are ailing in terms of their finances; therefore, DWA needs to be more pro-active in their planning. DWA cannot plan a scheme of this magnitude and then solely rely on the municipalities for local water supply. She noted that the decision makers will ask critical questions pertaining to the assurance of supply for the surrounding communities. If the project team moves forward with the uMWP, leaving communities behind, then it probably will not be approved. She also reminded everyone of DWA's recent adoption of a 'seamless value chain', which means water resources to the water services, so we need to look into that. The new policy also talks to that, so we should not look into these issues in isolation. **Response**: Mr Badenhorst suggested that an allocation of water for local use be made available as part of the scheme.	
(f)	Ms Lungile Cele wanted to know how the Ugu DM fits in within the bigger scheme. She notices that the Ugu DM is at the bottom of the supply chain. The Ugu DM is currently struggling due to the capacity of the water treatment works and the abstraction from the uMkhomazi River. **Response**: Mr Meier explained that the Smithfield Dam will have a specific yield (an amount of water which is available for release or for treatment). Umgeni Water is investigating constructing Ngwadini Dam. Water will be released from Smithfield Dam down the river to the Ngwadini Dam (which is an off-channel storage dam) and Umgeni Water will take water out from there, store it, and then treat it in a 100 Ml per day water treatment plant. Treated water will be released into the South Coast pipeline, which will go the Ugu DM. Currently, the South Coast pipeline extends up to Pennington. However, this will be extended to Hibberdene to link up with the Boboyi scheme. Thereafter, Umgeni Water will decommission Umtwalume/Umzinto network.	Umgeni Water/Ugu DM
(g)	Ms Cele indicated that her interest is more on the KwaLembe Scheme. She asked if the Ngwadini	Umgeni Water / Ugu DM

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	Dam will eventually tie up with the KwaLembe scheme (inland from Scottburgh) where the Ugu DM is experiencing water problems. It is a huge rural area within the Umdoni Municipality. New plans should eventually tie up with existing schemes and plans. **Response:** Pipelines can be constructed to serve those areas. Currently, Umgeni does not have the KwaLembe area in its plans but is trying to make water available to the South Coast Region as a whole. Thereafter, there is a need to connect secondary bulk pipeline lines to areas that need water. Umgeni Water would need to meet with the Ugu DM to discuss plans for supplying the KwaLembe area. A feasibility study will take approximately 1.5 years to complete before design can commence.	
(h)	Ms Cele asked if the Ugu DM will be consulted during the feasibility study. **Response:** Mr Meier confirmed that the Ugu DM would be consulted and will be invited as a Project Steering Committee Member for the South Coast water supply project. In addition, Mr Meier suggested that Umgeni Water schedules a meeting with the Ugu DM to discuss the scheme. Ms Cele agreed to Mr Meier's suggestion.	Umgeni Water / Ugu DM
(i)	Mr Maphumulo wanted to know where the iLembe DM fits into the entire uMWP scheme. He referred to the contractual issues ILembe DM with the Spring Grove Dam. It is important to resolve issues at an early stage so that when matters are submitted to Council, he is also clear on what should be contained in the submission. **Response:** Mr Meir explained the Umgeni System, where water from the uMWP will go to Umlaas Road, then go down to Hazelmere Dam. Water from Hazelmere Dam will then be allocated solely to the iLembe DM.	
(j)	Mr Maphumulo raised concerns about government planning in general. He indicated that the iLembe DM is currently busy with the implementation of the Lower Thukela scheme, which is costing the Government R 2.3 bn. The project should be completed by 2019, if all goes according to plan. There is also another scheme, the raising of Hazelmere Dam wall, which will cost the Government another R 1.3 bn. Now there is the uMkhomazi Water Transfer Scheme. He requested one master plan for the KwaZulu-Natal province so planning and development is dealt with in a phased approach instead of piecemeal. He also mentioned that one of the biggest concerns is that all these different schemes have financial implications for the various municipalities, which will ultimately result in tariff increases. As such, issues of affordability start to emerge. (He noted that the information on the financial implications of the uMWP is still to be presented). Therefore, before concepts are placed before council, these matters need to have been addressed. **Response**: Mr Bester indicated that perhaps the planning is not the issue but communication around it and people not attending the Reconciliation Study. He referred to the KZN Reconciliation Strategy for the KwaZulu-Natal Water Supply System, which was finalised in 2009 by DWA. The strategy identified, prioritised and confirmed the essential interventions necessary to meet the water requirements of the area for the next 25 years. The Reconciliation Strategy is a master plan in which the iLembe DM should have participated. It provides a good understanding of all the interventions that DWA is currently implementing. The system was fragmented five years ago. Lately, the constraints have been removed (through	

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expanding the pipeline network by Umgeni Water and eThekwini Metro), resulting in a bigger system, as. Hazelmere on the North Coast is, at this stage, a separate system. All these options are discussed in the Water Reconciliation Study, guided and informed through a Public Participation Processes. The challenge is ensuring continues participation from municipalities as officials change every five years. If necessary, a delegation can meet with the iLembe DM to assist the Council in understanding the uMWP and the implications thereof.	
(k) Mr Ednick Msweli asked if the uMWP will operate on a 'User Pays Principle'? The uMWP is estimated at R 17 bn. How will the scheme be funded? **Response**: Yes, it will be based on a 'User Pays Principle'. Further detail is provided in Section 5.5 (Project Financial and Institutional Arrangements). Refer to slides 45 -49 (Annexure B).	
5.3 PROJECT INFORMATION: POTABLE WATER COMPONENTS (MODULE 3)	
Mr Amal Doorgapershad provided background information on potable water components, which covered the following: • Water Treatment Works. • Potable Water Storage. • Potable Water Pipeline. He explained in detail all options considered for the potable water conveyance infrastructure and the water treatment works. Also, the layout and characteristics of both the potable water pipeline and water treatment works were described. A summary of this presentation is contained on **Slides 36 – 43** (Annexure B).	
(a) A question was raised regarding pumping requirements for the pipeline. **Response**: Mr Doorgapershad explained that pumping will not be required as dual gravity pipelines will be used to transfer water from the dam to the Umgeni Water Treatment Works.	
5.4 ENVIRONMENTAL IMPACT ASSESSMENT (MODULE 2)	
Mr Donavan Henning presented the status of the Environmental Impact Assessment (EIA) process. The information presented is summarised in **Slides 43 – 44** (Annexure B).	
(a) A question was raised regarding the social dynamics that have been observed thus far during the EIA process. **Response**: Mr Henning highlighted that Traditional Authorities are more concerned about transfer of water from their area to other catchments (bearing in mind the scarcity of potable water in their areas). Baynesfield is more concerned about the disturbance of their farming activities and loss of land (which is highly productive).	
(b) Mr Starkey alerted the study team that most of the study area falls within A and B categories of wetlands. If, hypothetically, one has to offset the wetlands, where will one get A and B	Nemai Consulting

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	replacements? **Response:** Mr Henning noted this and indicated that there are some useful lessons coming out of the Spring Grove Dam, which included wetland rehabilitation using SANBI's Guidelines. The Plan of Study for the EIA will make provision for a wetland assessment and offset study.	
(c)	Mr Abdulla remarked about the displacement of communities. How is this going to be effected? DWA learned some tough lessons from De Hoop Dam, and is going through some similar experiences with Spring Grove Dam. It will be important to deal with displacement of communities much earlier in the process to avoid mistakes of previous developments. Strategies need be in place to handle displacement caused by the uMWP. Also, funding needs to be made available for this aspect. **Response:** Mr Henning explained that approximately 11 households have been identified within the Smithfield Dam FSL. The land belongs to the Government and is registered under the Department of Land Affairs. A Relocation Action Plan is also part of the EIA scope and it will be prepared in close consultation with the affected households and communities (understanding their concerns, to where would they like to be relocated, sensitise people, etc). There are also useful lessons from the Ncwabeni Dam. Mr Bester noted that a number of good lessons were learned on Spring Grove Dam. Spring Grove was delayed only by two months, which was a considerable achievement. As such, Spring Grove Dam continues to provide useful basis for the uMWP.	DWA/Nemai Consulting
(d)	Mr Frank Stevens highlighted the importance of dealing with graves (identification and possible relocation) as soon as possible. It is a sensitive issue and needs to be handled well as it can take a considerable amount of time. **Response:** Mr Henning indicated that Amafa had attended the EIA Authorities Meeting. A Heritage Impact Assessment will be conducted during the EIA phase.	Nemai Consulting
5.5	**PROJECT FINANCIAL AND INSTITUTIONAL ARRANGEMENTS**	
	Ms Hermien Pieterse presented the project financial and institutional arrangements. The information presented is summarised in **Slides 45 – 49** (Annexure B). The following comments were raised and discussed.	
(a)	Mr Starkey encouraged the study team to talk about the financials as soon as possible. He mentioned that some of the off-take agreements on Spring Grove Dam have not yet been signed. He mentioned the iLembe DM as one WSA, which has not yet signed the agreement with Umgeni Water. **Response:** DWA noted this and Mr Msweli also concurred with Mr Starkey's statement.	DWA/Umgeni Water/AECOM
(b)	Mr Mabuda also reminded everyone to be mindful of the revision of the pricing strategy. This strategy will clarify which options are likely to be used by SA. As we all communicate this message, we also need to do comparisons, i.e. look at examples of similar schemes or system that benefit a bigger community, e.g. Vaal system. The proposed scheme has a major input into the entire water supply system as it will exist for a long	AECOM

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period (2050 to 2060). If one evaluates the uMWP in the correct context, one can still see that we are in a comparable position to schemes of similar size or demand. **Response:** Ms Pieterse noted Mr Mabuda's suggestion for inclusion in the full report.	
(c) Under Project Financials (Slide 47), Mr Meier asked if the land acquisition figures have been included. **Response:** Ms Pieterse indicated that land acquisition figures have been included but that the slide only shows a summary of costs.	
6. WORK PROGRAMME	
Slide 48 provides a summary of the uMWP programme from Feasibility Study to Implementation.	
7. CLOSURE & COMMENCEMENT OF OFFICIALS SITE VISIT	
The meeting adjourned at 11h30. A detailed itinerary was presented highlighting key stopping points during the site visit, which included the following: • uMkhomazi River Catchment view point. • Tunnel Inlet. • Smithfield Dam – Main and Saddle Dams. • Baynesfield Estate. • Tunnel Outlet. • Langa Balancing Dam (including possible quarries). • Water Treatment Plant.	
Notes prepared by B Shinga & HS Pieterse	

Annexure A: Attendance Register

Annexure B: Presentations

Presentations:

- Department of Water Affairs: Project Background and Motivation
- AECOM: Raw Water Component (*Module 1*)
- Nemai Consulting: Environmental Impact Assessment (*Module 2*)
- Knight Piésold: Potable Water Supply (*Module 3*)