



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

PROJECT INFORMATION	
CLIENT	DEPARTMENT OF WATER AFFAIRS
PROJECT	WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA
MEETING	TECHNICAL SUPPORT GROUP MEETING NO. 4
DATE	29 AUGUST 2012
TIME	10:00 HRS
VENUE	AURECON OFFICES, 25 ROOD STREET, NELSPRUIT

Draft Minutes

1	OPENING AND WELCOME Mr Niel van Wyk (NvW) formally opened the meeting and welcomed all attendees.		
2	INTRODUCTION OF ATTENDEES		
2.1	Present		
	Name and Institution)	Contact Number	E-mail
	Frans Greyling (Mbombela LM)	013 759 2178	fransg@mbombela.gov.za
	Arthur Douglass (Silulumanzi)	013 752 6839	arthur.douglass@sembcorp.com
	Yolanda Oosthuizen (Silulumanzi)	013 752 6839	yolanda.oosthuizen@sembcorp.com
	Werner Comrie (Aurecon)	082 808 0435	werner.comrie@aurecon.com
	Dawie Koekemoer (Aurecon)	082 940 4490	dawie.koekemoer@aurecongroup.com
	Johnny Beumer (Aurecon)	082 885 3573	johnny.beumer@aurecongroup.com
	Lindani Ngcobo (Mbombela LM)	071 374 2386	lindani.ngcobo@mbombela.gov.za
	Kennedy Mandaza (DWA: NWRP)	012 336 7670	MandazaK@dwa.gov.za
	Tendai Sawunyama (IWR)	076 628 0240	tendai@waterresources.co.za
	Brian Jackson (ICMA:WRP&P)	078 457 7639	jacksonb@inkomaticma.co.za
	Manda Hinsia (SRK)	082 808 9938	hinm@srk.co.za
	Niel van Wyk (DWA: NWRP)	082 808 5651	vanWykN@dwa.gov.za
	Geert Grobler (DWA:WRPS)	012 336 8691	groblerg@dwa.gov.za

	Marius van Aardt (Silulumanzi) 082 782 5247 marius.vanaardt@sembcorp.com Johann van Aswegen (DWA:MPU) 082 807 4198 vanaswegenJ@dwa.gov.za Stephen Mallory (IWR) 083 415 7223 stephen@waterresources.co.za Pierre van Jaarsveld (Urban-Econ) 082 828 9374 pierre@urban-econ.com Paul Odendaal (IWR) 073 163 4073 paul@waterresources.co.za Nhlanhla Khoza (Mbombela LM) 079 929 5294 nhlanhla.khoza@mbombela.gov.za	
2.2	Apologies Marius Kolesky (ICMA) 083 677 1806 koleskym@inkomaticma.co.za Paul Herbst (DWA: WUE) Eddie Riddell (University KZN) edriddell@gmail.com Willem Wegelin (WRP) 083 447 7999 willemw@wrp.co.za Khumbu Moyo (DWA: WUE) 012 336 8293 MoyoK@dwa.gov.za Pinkie Hermanus (Mbombela LM) 013 759 2304 Pinkie.Hermanus@mbombela.gov.za	
2.3	NvW especially welcomed Marius van Aardt from Sembcorp-Silulumanzi who was attending for the first time and confirmed that he was fully up to date with the aims and objectives, as well as the progress of the study.	
3	ADOPTION OF AGENDA	ACTION
3.1	Approval of Agenda <ul style="list-style-type: none"> Stephen Mallory (SM) added the following two components to Item 6 of the Agenda 6 (<i>Progress Report of Preliminary Assessment of the Study Area</i>) <ul style="list-style-type: none"> ➤ Climate Change ➤ Institutional Capacity Kennedy Mandaza (KM) requested that the proposed structure of the preliminary reconciliation report be added to the Agenda as an item for discussion. <p>SM responded that the matter would be discussed under Item 10</p>	

	<p>(General) and need not be added to the Agenda as a separate item.</p> <p>The Agenda was otherwise accepted as proposed.</p>	
4	ACCEPTANCE OF THE PREVIOUS MINUTES	ACTION
4.1	<p>p3. Paul Herbst was indicated erroneously as being part of DWA: NWRP. In reality he is with Water Use Efficiency (DWA: WUE).</p> <p>The previous minutes were otherwise accepted without changes.</p>	
5	MATTERS ARISING FROM THE PREVIOUS MINUTES	ACTION
5.1	<p>p3. SM confirmed that a letter had been written and delivered to Zayd Boroka of Mbombela LM, formally informing him of the study aims and objectives, and inviting him, firstly, to the 1st Stakeholder meeting (31 May 2012) and, secondly, to participate in future meetings.</p>	Completed
5.2	<p>p4. SM confirmed that the study's inception report had been e-mailed to several attendees, but that it is also available on the DWA website.</p> <p>http://www.dwa.gov.za/Projects/WRAR/finalR.aspx</p>	Completed
5.3	<p>p5. SM confirmed that Rocky's Drift has been included in the White River Urban Grouping instead of lumped with Nelspruit.</p>	Completed
5.4	<p>p6. Russel Aird's demographic findings were presented in detail at the 1st Study Steering Committee Meeting on 31 May 2012.</p>	Completed
5.5	<p>p7. Dawie Koekemoer (DK) confirmed that he'd met with Arthur Douglass and Willem Wegelin and obtained updated water use information for the various areas managed by Sembcorp-Sililumanzi.</p>	Completed

5.6	<p>p8. Arthur Douglas (AD) confirmed that he could not find a copy of the groundwater report (the report that was conducted 2-3 years ago on contamination of groundwater by VIP toilets resulting in forced closure of numerous municipal bulk supply boreholes.</p> <p>AD and DK to follow up on finding a copy of the groundwater report.</p>	AD/DK
5.7	<p>p9. DK confirmed that an assessment at basic reconnaissance level was done on the feasibility of raising Ngondwana Dam. Findings were presented at the 1st SSC meeting on 31 May 2012.</p>	Completed
5.8	<p>p13. Tendai Sawunyama (TS) confirmed that MEGA had been invited to the 1st SSC meeting on 31 May 2012 and had also attended.</p>	Completed
6	PROGRESS REPORT: PRELIMINARY ASSESSMENT OF THE STUDY AREA	ACTION
6.1	<p>Feedback from the first SSC meeting</p> <p>SM confirmed that the first SSC meeting had been held on the 31 May 2012 with good attendance and positive feedback. Minutes have been distributed to attendees.</p>	
6.2	<p>Socio-Economics</p> <p>Pierre van Jaarsveld (PvJ) of Urban-Econ gave a presentation on socio-economic aspects related to Mbombela in general, and Mbombela's water use in particular, focusing on the following eight components.</p> <ul style="list-style-type: none"> • Legislative Framework • Status Quo • Growth Drivers • Economic Analysis • Population Growth Scenarios • Economic Growth Scenarios • Water Demand Estimations • Financial Implications <p>The presentation is not repeated in here but the full presentation is to be</p>	

	<p>made available on the website http://www.dwa.gov.za/Projects/WRAR under the file Mbombela Bulk Water Strategy Inputs.pptx</p> <ul style="list-style-type: none"> • Many of the findings were intuitively expected; these include a population increasing in size and density, a population demography skewed towards young people, with most of the households in the municipal area being black and falling in lower income groups. • Unexpected findings include a significant decrease in the contribution of the agriculture and manufacturing sectors to total employment (a drop from 14.1% to 4.9% from 1995 to 2009 for Agriculture, 16.4% to 6.1% for Manufacturing). Conversely, the Finance & Business Sector and Government have shown significant increases in employment contribution between 1995 and 2009 (a jump from 16.2% to 25.1% for Finance/Business and 17.4% to 28.3% for Government). <p>Werner Comrie (WC) asked Pierre van Jaarsveld whether he had access to actual data since the use of percentages only could introduce certain biases which could result in misleading conclusions being drawn.</p> <p>PvJ agreed that he did have actual data available.</p> <ul style="list-style-type: none"> • PvJ presented long-term population growth scenarios, derived from historical data, including high and low growth scenarios; he also presented population projections from the Mbombela 2009 WSDP. He expressed skepticism regarding the WSDP's growth projections, positing that it over-estimated the likely true figure considerably. <p>Reasons for such an over-estimate were speculated by him to include duplicate counts of houses. Households sometimes own more than one house, using one during the week and another over the weekend. Population estimates derived from house counts only disregard the effects of such local/internal migration.</p> <p>SM added that PvJ's conclusions agree with those presented by Russel Aird during the 1st SSC meeting on 31 May 2012, increasing the confidence one might have in either.</p> <p>WC asked whether growth information was available for the individual urban groupings which Mbombela had been divided</p>	<p>SM/TS</p>
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	<p>into for the purposes of the study.</p> <p>SM confirmed that, while it was not available from PvJ's data, it had been done for Russel Aird's study, so the information was available for inclusion into the Mbombela Reconciliation study.</p> <ul style="list-style-type: none"> • PvJ presented information on current and projected future water demand in the Mbombela Municipal Area but did not go into detail, more recent data already being available to the Mbombela Reconciliation Study from other sources. SM confirmed this and pointed out that the water use requirements presented by PvJ should not be seen as final. • The monetary value of water had been quantified for each water use sector, and was presented to the meeting. Some of the findings were expected and even axiomatic in that, in terms of gross value addition, use of water for industrial purposes contributed considerably more to the economy per cubic meter than using water for agricultural purposes. <p>It had been argued at various platforms unrelated to the current TSG meeting that, conversion of agricultural water to industrial use could constitute a major economic boost and the above seemed to superficially support this, as pointed out by PvJ.</p> <p>However, PvJ argued in his presentation that this line of reasoning is spurious and he quantified the ripple-effect that conversion of 10% Agricultural to domestic use would have on the regional economy.</p> <p>Because Agricultural (including forestry) directly feeds into several other sectors, including Manufacturing, Trade, Transport and Business services, the economical contribution of Agriculture is substantially higher than should be inferred purely from its monetary contribution to GDP or the value addition per cubic meter (GVA / Gross Value Addition).</p> <p>In fact, reducing agricultural water by 10%, and converting to industrial/domestic use, will produce an economic ripple-effect in higher economic sectors of an order of magnitude greater.</p> <p>NvW asked that, for final and formal reporting, the data should be presented to include the % of GDP since the actual monetary impact of water reduction in the primary sector sounds considerable but might, when converted to a % of GDP be less severe than imagined; or, even if</p>	<p>PvJ</p>
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<p>less severe, the possibility still has to be investigated for the sake of completeness.</p> <p>Brian Jackson (BJ) added that, nevertheless, such indirect ripple-effects on higher sections of the economy necessitates an element of caution when advocating trading/curtailment as a water reconciliation option, since the economic consequences of doing so might be greater than initially thought, and this will have other, possibly unforeseen negative socio-economic impacts.</p> <p>Clearly quantify higher-order economic impacts when proposing trading / curtailment of agricultural water as a reconciliation option.</p> <p>SM agreed, but stated that curtailment would, at the current state of the Reconciliation Study, not be a preferred reconciliation option anyway, Water Conservation and Demand Management measures and Yield Augmentation being the more preferred intervention options at the current state.</p> <p>NvW highlighted that the point raised by BJ – caution when advocating curtailment and even then only with a full appreciation of the hidden effects – is an important aspect which should be taken note of; however, statistical quantification of economic impacts lends itself to subjective interpretations which may be used for divergent purposes, depending on personal outlook or proclivities, or agenda. Objective and dispassionate reporting on economic impacts is critical; i.e. when reporting, one should not specifically push for a specific option but one should present data objectively to decision makers and allow them to make an informed decision.</p> <p>Frans Greyling (FG) noted that, when PvJ was requested to conduct the study (which he'd presented his findings on to the meeting), it was not merely to quantify the economic value of agricultural water. The study also had philosophical ramifications in that it intended to show how curtailment, or appropriation of agricultural water without due legal process, could have economic consequences elsewhere in the economy. This is something which Water Services Authorities in general, and Mbombela Local Municipality in particular, may not always be fully aware of when focusing on providing water to inhabitants to the exclusion of other factors.</p> <p>Johnny Beumer (JB) pointed out that the 10% reduction in agricultural water, reported on my PvJ, and the associated economic impacts on higher sectors of the economy, presupposes a concomitant reduction of 10% in agricultural output. The effect of this can be reduced to some</p>	<p>PvJ</p>
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6.3	<p>extent if the 10% reduction is not effected by curtailment or trading, but is freed up through increased irrigation efficiency. This allows water to be made available with less impact on industrial and manufacturing sectors. While such savings might still have some economic consequences (e.g. preventing growth in the agricultural sector by preventing lateral expansion), these economic impacts will be mitigated to some extent by Water Services Authorities not having to develop expensive new water resources.</p> <p>SM asked how the economic matter is then to be taken further, especially since he has newer information (PvJ's presentation gave 2009 information but it could be updated to incorporate 2011 information). If the Reconciliation Strategies are then proposed, PvJ could look through them and attempt to quantify economic impacts.</p> <p>NvW agreed that this should be done, but within reason, since the fundamental findings will not be materially altered by two years' worth of additional data. He cautioned that updating information for the sake of updating information only might not be the best use of resources if it doesn't meaningfully add to the information that will eventually be made available to decision makers.</p> <p>BJ agreed, but also noted that, even if the fundamental findings won't change through updated data, Stakeholders might have more confidence in conclusions drawn from the latest data, people sometimes being skeptical regarding data which is perceived to be outdated. There is, therefore, a psychological element as well.</p> <p>PvJ is therefore to update 2009 Socio-Economic findings with 2011 data, but within reason.</p> <p>Water Quality</p> <p>Manda Hinsa (MH) gave a presentation on the water quality component on the study, addressing not only water quality within the Mbombela Local Municipal Area, but also upstream use which may impact on municipal water supply.</p> <p>This study component has five objectives,</p> <ul style="list-style-type: none"> • Identifying triggers which may have an effect on water quality • Identifying water users • Evaluation of current water quality and observe trends • Comparison of ambient water quality with user requirements (RWQO) 	PvJ
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	<p>testing groundwater quality of Municipal Boreholes.</p>	
6.4	<p>WC/WDM</p> <p>Willem Wegelin (WW) was not present at the meeting. Progress was communicated by him electronically to SM, and communicated by SM to the meeting, as follows:</p> <p><i>The task team has conducted interviews, obtained status quo data and field visits.</i></p> <p><i>Progress on the WDM progress is good and task team is busy with the strategy development. This component is expected to be complete by the end of September which will be followed-up with discussions with the municipality for approval.</i></p>	
6.5	<p>Climate Change</p> <p>TS gave a presentation, for the purposes of general information, on the possible impacts which Climate Change may have on water resources in future. The details of the presentation are not reproduced here, is to be made available on the DWA website at: http://www.dwa.gov.za/Projects/WRAR)</p> <p>Impact of climate change on Municipal Water Resources 29 August 2012.ppt</p> <p>NvW pointed out that the methodological approach by TS, as well as other research on the matter, suggests that Climate Change will not inevitably result in future shortages and increased droughts. Parts of the country, specifically the North-East, might in fact become wetter, on average.</p> <p>Kennedy Mandaza (KM) concurred, noting that DWA's intervention strategies tend to be aimed at pre-empting or addressing water shortages. He asked whether TS's views on Climate Change might provide new insights on Mbombela's Reconciliation Study.</p> <p>NvW highlighted the importance of maintaining monitoring, since statistically significant information does not yet exist which conclusively shows the direction of changing climate patterns in South Africa. However, constant monitoring will allow timeous intervention. If Climate Change were to result in wetter conditions, it would not be a big</p>	SM/TS

	<p>problem, and intervention might not be necessary, whereas, should conditions become drier, on average, intervention would be necessary.</p> <p>SM agreed, but stated that sufficient information exists which shows South Africa is at least becoming hotter. Climate Change is often, colloquially, and incompletely, viewed as changes in rainfall patterns, but runoff is influenced greatly by changes in temperature; e.g. by increased evaporation from rivers or by increased evapotranspiration of plants, resulting in increased irrigation requirements.</p> <p>BJ queried the conclusions from the presentation regarding baseflow, which state that baseflow might not be impacted upon greatly. SM said that much of the data showing that was derived from the Sabie system, where strong baseflows exist and where exploitation of water resources for domestic or industrial purposes is less extensive than for the Crocodile River. Naturally, the effect of reduced baseflows will be more pronounced in the more intensively developed Crocodile River.</p> <p>JB added, in support of BJ's point that, the meeting should bear in mind that, even should Climate Change result in wetter conditions for Mbombela – which it may not – increased flows might still result from an increase in episodic floods rather than from increased flows throughout the year. Problems related to low flows might still occur during the dry season.</p> <p>NvW agreed, saying that Climate Change is a field still in its infancy, at least for predictive purposes, and that uncertainty regarding future scenarios should be expected. Within reason, one could sketch future Climate Change scenarios, including outcomes and provisional responses, but that too much detail might be unwarranted if it diverted resources away from other aspects where more tangible results could be obtained with the same or similar effort.</p> <p>BJ agreed, but noted as a general statement that management of river systems during periods of low flow should be prioritized anyway.</p>	
6.6	<p>Institutional Matters</p> <p>TS gave a brief presentation on a previously unreported aspect important to the Mbombela Reconciliation Study; that of broadly determining the institutional capacity of various Water Management institutions in the catchment, especially the Water Services Authorities, to undertake its water related functions.</p>	

	<p>This will be undertaken by conducting a basic audit of skills in the respective institutions. Comparison of the number of vacant positions in the structure will serve as an indication of the availability of appropriate human resources to undertake water related services.</p> <p>TS reported that the following institutions had been identified to date as directly or indirectly relevant to water services provision on the catchment, and organograms obtained on their institutional structures:</p> <ul style="list-style-type: none"> – Inkomati CMA – Mbombela LM – DWA Regional office (Mpumalanga) – Sembcorp Silulumanzi – Bushbuckridge Water Board – Catchment Forums <p>BJ noted that some of these institutions have significant external support structures which augment their internal capacity and this should also be taken in account.,</p> <p>GG asked, in view of the regional significance of irrigation and forestry in water resources, whether it might not be useful to add those sectors to the study component.</p> <p>SM and NvW agreed to include Irrigation and Forestry in the institutional capacity task.</p> <p>FG cautioned that it might be simplistic to conduct a skills audit by looking at vacancies, since vacancies might be filled by persons without the requisite skills to perform a certain task, or lack adequate supervision in performing those tasks. Furthermore, people with skills may not be able to perform a certain task because of operational constraints.</p> <p>Investigating operational constraints that might not necessarily be obvious from speaking to Human Resources personnel.</p> <p>SM asked who the best persons would be to talk to on this matter. Intuitively, one might expect the best persons to speak to, to be Human Resources but HR might not be able to assist when assessing operational matters.</p> <p>FG suggested speaking to Water and Sanitation personnel as well.</p> <p>NvW concurred with FG on this.</p>	<p>SM/TS</p> <p>SM</p>
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<p>6.7</p>	<p>Future Water Requirements</p> <p>JB gave a presentation on current and projected future water requirements for each of the urban nodes in the Mbombela Municipal Area. The presentation covered not only actual abstraction but also authorised abstraction, thus identifying areas where water use licensing might be necessary.</p> <p>The presentation is to be made available on the DWA project website at http://www.dwa.gov.za/Projects/WRAR), with the name</p> <p>Water Balance Presentation v0 4.pptx</p> <p>The provisional conclusions were that the actual abstraction exceeds the licensed abstraction in several cases, specifically Nsikazi North, Nsikazi South and Matsulu, while Karino-Plaston and Hazyview appeared to abstract water without any authorisation at all. Nelspruit and White River appeared to be within their lawful allocations at present,</p> <p>Several concerns were raised with regards to these findings:</p> <ul style="list-style-type: none"> • Arthur Douglass pointed out that Nelspruit’s abstraction volumes in the presentation are under-reported and that the actual abstraction is, in fact, substantially higher. JB’s presentation gave a figure of roughly 30ML/d when the actual figure is closer to 37ML/d. <p>Arthur Douglas also expressed concern about the fact that JB referred to Mataffin’s water use as only being 0.73 million m³/a (or about 2ML per day) when the actual requirements will eventually be as high as 13ML per day.</p> <p>JB pointed out that his presentation referred to current water use while Mataffin is still in process of development and expansion. As Mataffin’s water requirements increase in future, Hall&Sons, who own much of the land and agricultural water rights, will gradually phase in water use conversions.</p> <p>However, JB acknowledged that other water use information might have to be updated.</p> <ul style="list-style-type: none"> • FG asked JB how the Mbombela Reconciliation Study will 	<p>SM/TS</p>
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	<p>accommodate township development, since townships in the Mbombela area of jurisdiction are often provided with water from private sources which are purified on-site. These allocations are not credited to the Mbombela Municipality, but are included in Municipal estimates of total water requirements.</p> <p>FG also pointed out that the estimates which show White River to be well within its lawful limits are spurious since the spare water has already been allocated to townships which have already been approved.</p> <p>The following matters need to be followed up on.</p> <ul style="list-style-type: none"> • Are the figures presented by JB correct? The licensed volumes might not be correct since other licenses might exist (refer to specific items on this list) but current abstraction volumes for at least Nelspruit should also be verified and updated if and as appropriate. • The license to Karino-Plaston may already have been issued. A copy has to be obtained from DWA if it has. • Has a license been issued for domestic abstraction from Primkop? What are the operational details of this abstraction? Has water for Tekwane legally been transferred from the White River to the Crocodile River? • What other License Applications (for township development) have been submitted for which a decision from DWA is still pending and might be issued soon. • Several private developments use water for domestic purposes, and they may have obtained water by conversion of private agricultural sources. While the list may be extensive, Hazyview's golf courses were mentioned specifically. • Is there legal documentation authorizing abstraction from the Sabie River IB canal by Hazyview? • What are the details of the 20ML plant being considered by the Municipality for use by Kabokweni and Tekwane. 	SM/PO/JB
6.8	<p>Possible Reconciliation Options</p> <p>SM briefly highlighted reconciliation options which had already been discussed during previous meetings and which are not repeated here.</p> <p>SM added one additional item which will require investigation:</p>	SM

	<p>Strathmore Dam.</p> <p>Strathmore Dam has been mooted historically as a feasible option for a dam in the lower Crocodile, which could be used to augment flows in much the same way as Mountain View is currently being envisaged: transferring the burden of storing for the lower Crocodile from Kwena Dam to a dam lower down. Earlier investigations suggested this option to be too expensive, but further investigation is justified.</p> <p>JB also suggested that another dam site in the Elands River, upstream of the envisaged Montrose Dam, be investigated since Montrose has so many ecological and economic ramifications that the dam might be more effort than it's worth.</p>	SM/JB
7	<p>STUDY PROGRAMME</p> <p>SM confirmed that the Study is progressing as planned, and is on schedule for its envisaged completion by April 2013.</p>	
8	<p>FUTURE MEETINGS AND DATE OF NEXT MEETING</p> <p>SM mentioned that the next SSC meeting is scheduled for the 16th October, with a practice meeting to be held a week before, for preparation.</p> <p>A draft reconciliation report is to be distributed before then.</p> <p>NvW proposed that a date for the next TSG meeting not be decided upon yet, but that it be held only after the next SSC meeting on 16 October.</p>	
9	COMMUNICATION AND DISTRIBUTION OF INFORMATION	

	<ul style="list-style-type: none"> • SM confirmed that the project is listed on the DWA website at http://www.dwa.gov.za/Projects/WRAR/finalR.aspx • Several attendees proposed that Powerpoint presentations be added to the website since the size of the presentations made them difficult to distribute by e-mail. These are indicated in these minutes where appropriate. • SM noted that he was in the process of compiling a newsletter on the study for public information purposes. 	SM
10	<p>GENERAL</p> <ul style="list-style-type: none"> • A structure for the final Reconciliation Strategy was proposed. This is not reproduced here, but will be made available on the DWA website at: http://www.dwa.gov.za/Projects/WRAR/finalR.aspx entitled: Mbombela RS Technical Support Group Meeting_29 Aug 2012.pptx <p>Comments were invited from all attendees on the structure of the report.</p> <p>SM pointed out that the items indicated in the proposed structure were not exhaustive since additional stand-alone reports would be available for, e.g. Water Quality, Groundwater.</p> <p>NvW asked how catchment-wide issues of water availability would be introduced into the report. SM indicated that this would be in Chapter 2 (Study Area).</p> <p>KM also asked how the new items reported on at the current (29 August) meeting would be incorporated into the report structure: Climate Change and Institutional Aspects.</p> <p>SM stated that he was unsure, but that these elements could be incorporated into the main report, or as separate chapters to be added.</p> <ul style="list-style-type: none"> • BJ proposed that an item be added to the agenda for the next TSG meeting further work can be discussed that fall outside the 	<p>ALL</p> <p>SM</p>

	<p>scope of the current study but which will have to be done still under another study.</p> <p>This might also have to be added to the final reconciliation strategy as a separate Chapter.</p>	
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AGENDA FOR 29 AUGUST 2012

WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA		
TECHNICAL SUPPORT GROUP		
Date: 29 August, 2012 Time: 10:00 Venue: Aurecon, Nelspruit		
Chair : Mr N Van Wyk		
<i>Meeting Objectives</i>		
1. To present progress with the study		
Item	Agenda Point	Discussion Leader/Presenter
1.	Opening and Welcome	N van Wyk
2.	Introduction of Attendees	
3.	Adoption of Agenda	
4.	Acceptance of the previous minutes	N van Wyk
5.	Matters arising from the previous minutes	N van Wyk
6.	Progress report Preliminary assessment of the study area <ul style="list-style-type: none"> - Feedback from the first SCC meeting - Socio-economics - Water quality - WC/WDM - Future Water requirements - Possible reconciliation options 	Study team
7.	Study Programme	S Mallory
8.	Future Meetings and Date of Next Meeting	N Van Wyk
9.	Communication and Distribution of Information	N Van Wyk
10.	General	
11.	Date of next meeting	

ATTENDANCE REGISTER 29 AUGUST 2012



ATTENDANCE REGISTER

DATE: 29/08/2012
PROJECT: mboombela Reconciliation Strategy

NAME	SIGNATURE	EMAIL ADDRESS	CONTACT NUMBER	ORGANISATION
Kennedy Wandoga		moneloyek@chwa.gov.za	012336 7670	DWA
Tendai Sawunyanwa		tendai@waterresources.co.za	0766280 240	IWR Water Resources
Brian Jackson		jacksonb@international.co.za	078 4577639	ICMA
Manda Hinson		h'm@srk.co.za	082 8089938	SRK
NIEL VAN WILK		vanwilkn@dwa.gov.za	082 8085651	DWA
Geert Grobler		groblerg@dwa.gov.za	012 336 8891	DWA
MARCO VAN ARANT		marco.vanarant@sambcorp.com	082 783347	Sambcorp
Sharon van Dongen		van Dongen@edun.gov.za	082 207 4198	DWA-dyn
Stephen Mallory		stephen@waterresources.co.za	083457223	IWR Water Resources
Pierre van Jaarsveld		pierre@urban-econ.com	082 828 9374	URBAN-ECON
Paul Oshindeni		paul@waterresources	073 163 4674	IWR Water Resources
Phlankla Khoza		phlankla.khoza@mombela.gov.za	079 929 5294	Mombela Municipality

DATE: 29/08/2012

PROJECT: Mbombela Reconciliation Strategy

ATTENDANCE REGISTER



NAME	SIGNATURE	EMAIL ADDRESS	CONTACT NUMBER	ORGANISATION
F. GREYLING		fransgreymbombela.gov.za	013 759 2178	MLM
A. DOUTASS		arthur.doutass@sembcorp.com	013 752 6839	Sembcorp
J. OOSTHUIZEN		yolanda.oosthuizen@sembcorp.com	013 752 6889	Sembcorp
WERNER COMRIE		Werner.Comrie@Aurecongroup.com	082 808 0435	Aurecon
Dawie Kerkmeester		Dawie.Kerkmeester@Aurecongroup.com	082 964 6190	Aurecon
Johnny Beumer		johnny.beumer@Aurecongroup.com	082 885 3573	Aurecon
Lindani Ngcobo		Lindani.ngcobo@mbombela.gov.za	011 374 2386	MLM