

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. 1							
DATE	29 NOVEMBER, 2011							
TIME	10:00 HRS							
VENUE	AURECON OFFICES, 25 ROOD STREET, NELSPRUIT							

Draft Minutes

1 OPENING AND WELCOME

Mr Niel van Wyk (NvW) welcomed all to the meeting and summarized the objectives of this project:

- To develop future water requirement scenarios in the Mbombela Local Municipal area in consultation with users
- To investigate all possible water resources and other interventions available to Mbombela LM
- To investigate all possible methods for reconciling the requirements with the available resources
- Make recommendations for development and implementation of interventions

2 ATTENDANCE AND APOLOGIES

2.1 Present

Name	Telephone No.	Email
Niel van Wyk (DWA: NWRP)	082 808 5651	vanWykN@dwa.gov.za
Khumbu Moyo (DWA: National)) 082 803 0892	MoyoK@dwa.gov.za
Kennedy Mandaza (DWA:NWRI	P) 012 336 7670	MandazaK@dwa.gov.za
David Maphothoma (DWA:MPL	J) 082 602 8275	maphothomaD@dwa.gov.za
Brian Jackson (ICMA)	078 457 7639	jacksonb@inkomaticma.co.za
Frans Greyling (Mbombela LM)	013 759 2178	fransg@mbombela.gov.za
Happy Mushwana (Mbombela)	072 607 7171	
Stephen Mallory (IWR)	083 415 7223	stephen@waterresources.co.za

	Dawie Koekemoer (Aurecon) Werner Comrie (Aurecon) Paul Odendaal (IWR)	012 427 3125 082 808 0435 073 163 4074	dawie.koekemoer@af.aurecongroup.com Werner.Comrie@af.aurecongroup.com paul@waterresources.co.za
2.2	Apologies Johann van Aswegen (DWA:MPU) Patrick Ntabeni (DWA:MPU) Pinkie Hermanus (Mbombela LM) Amali Rashke (Provincial Gvt.)	082 807 4198 079 510 7283 013 759 2304	vanaswegenJ@dwa.gov.za NtabeniP@dwa.gov.za Pinkie.Hermanus@mbombela.gov.za amali@mpg.gov.za

3 ADOPTION OF AGENDA

3.1 Approval of Agenda

The following was added to the Agenda under Item 4 (Study Background)

An introductory presentation by Niel van Wyk (NvW)

The Agenda was accepted.

3.2 Documentation referenced during the meeting

Four documents used or referred to during the meeting are to be made available to the attendees.

- An introductory Powerpoint Presentation by NvW entitled Niel recon present Mbombela.ppt
- A detailed presentation on procedure by Stephen Mallory (SM) and Dawie Koekemoer (DK) entitled Presentation 29 November 2011 v0.1.pptx
- The National Planning Commission's *National Development Plan: A Vision for 2030* (dated 11 November 2011)
- A report on the development of a water conservation and water demand management strategy for Mbombela municipality (The Development of Comprehensive Water Conservation and Water Demand Management Strategy and Business Plans -Domestic Sector: Mbombela Local Municipality (November 2008)).

3.3 Required Actions Plans

- A decision to be made on including Eddie Riddell into the TSG.
- Consultation with Patrick Ntabeni (PNt) and/or Johann van Aswegen (JvA) on whether Sampie Shabangu should be seconded into the TSG.
- A decision to be made on whether to invite representation from the Directorate: WQM into the TSG, possibly Gert Grobler.
- Comments to be provided on the Draft TSG Terms of Reference.

Finalisation of the membership list of the Study Steering Committee; the ICMA CMS Stakeholder list to be examined for significant omissions from the draft list. 4 **STUDY BACKGROUND ACTION** Background to the Reconciliation Study. 4.1 NvW NvW opened the first TSG meeting by presenting the rationale behind water reconciliation studies: that there is a tendency for domestic water requirements to exceed water availability. NvW then discussed the Mbombela Reconciliation study within a national context, specifically with reference to the findings of, and key strategic messages arising from other similar studies conducted for the Western Cape and KwaZulu-Natal metropolitan areas. No discussion or comments arose from the presentation. An electronic copy of the full presentation has been made available to the meeting. Introduction 4.2 SM Stephen Mallory (SM) introduced the study, and explained the reason for the first meeting of the Technical Support Group (TSG), which is: To explain to the TSG what this study is about. To explain what is expected from the Technical support Group. To give the group an understanding of the water related problems in the Mbombela Municipal Area and the proposed way forward with this study. • To outline the programme for the study and decide on future meetings. To establish communication channels. SM then introduced the full project team to the TSG, with their respective areas of speciality: **IWR Water Resources** Study leader Water Requirements & Water Resources Aurecon Study co-ordination Infrastructure development Strategies Groundwater SRK Water Quality Kyamandi

Demographics

- WCDM
 - To be announced
- ARQ
 - Specialist dam options
- Stakeholder Engagement
 - Gubu Mazibuku

Water Availability

SM gave a brief summary of the envisaged process, specifically with regards to the complication that municipal boundaries and catchment boundaries do not overlap. The consequence of this is that additional water resources, or strategies for intervention, might have to be sourced from outside the municipal area. The study team will adopt this approach, quantifying domestic and industrial use and allocations inside the municipal area, and investigating both the Sabie River- and the Crocodile River Catchment for additional water sources.

Water Requirements

SM reported that current water use for Mbombela is well documented, but will be updated with the most current information as and where required. Future realistic requirements will be determined through detailed demographic studies and the application of agreed to per capita consumption figures and assurances of supply.

SM made the important point that current national estimates of water demand growth is far in excess of population growth, and that it is not certain how much of this is the result of increased levels of service delivery, and how much due to uncontrolled losses. For this reason, acceptable per capita consumption figures have to be agreed upon, and enforced, with the question of free basic water taken into consideration.

Water Balance

SM reported that all current information suggests that Mbombela is already exceeding its lawful allocations. The two main implications of this are, firstly, that the assurance at which downstream users will get their water will be reduced and, secondly, that the ecological water requirements and international flow requirements might not be met.

SM

SM

SM

Reconciliation Options:

Water Conservation and Water Demand Management

DK

Dawie Koekemoer (DK) reiterated the need for a reconciliation strategy by quoting from the National Development Plan, published by the National Planning Commission

 A review of existing allocations is needed in areas where water use already exceeds reliable availability and the amounts necessary to secure protection of the environment. If this is not undertaken, illegal use of the resource will rise – and it may be over-allocated (formally and informally). This will lead to reduced supply reliability, which will jeopardise existing social and economic uses, while damaging the environment.

DK proceeded to briefly discuss three possible reconciliation options that may be investigated as part of the reconciliation study, namely

- Water Conservation and Water Demand Management: Not including the
 effects of free basic water, municipalities are estimated to lose, on
 average, about 35% of water supplied nationally and this impacts on
 revenue collection, as well as on water availability and the environment.
 Reducing losses is of primary importance in any reconciliation strategy and
 has been listed as a priority by the National Treasury.
- Resource Development: This includes the construction of new dams, such as Boschjeskop Dam as a local solution, or Montrose and Mountain View Dams as regional solutions.
- Trading: Allocations could be obtained from irrigators through trading. Increased allocations could also be contemplated from currently underutilised resources, including Ngodwana Dam or Da Gama Dam, although such allocations might have to be coupled to trading if assumptions of local surplus in these sources do not translate to regional water availability.

NvW made the point that the three options presented are intuitively attractive, but that one should guard against making pre-emptive decisions on which strategies are preferred, since other strategies might be found to be feasible as well, especially when used in combination. The final reconciliation interventions should be based on best science, and not on gut-feel. However, he acknowledged that one may be intuitively guided in a certain direction by long experience and extensive background knowledge of an area.

Frans Greyling (FG) stated that one complication with considering Trading as an option is that there is no accurate and updated database of irrigation water available. Absence of such a database complicates the identification of available irrigation water since the municipality would then be required to approach users in an unsystematic or an ad hoc manner.

Werner Comrie (WC) added to this that the existence of such a database would

still not necessarily facilitate trading of water since it would not identify willing sellers or unused water, only total water allocations, some or most of which would be in productive use.

FG added that the White River Valley Conservation Board has large irrigation allocations, and owns and manages several private dams in the White River (Klipkopje and Longmere Dams being the most important). As such, it lies outside the jurisdiction of DWA. He pointed out that such a water management entity should not be excluded from the process.

SM stated that all water belongs to the state and the fact that the WRVCB operates private dams and manages irrigation water does not exempt them from compliance with higher water legislation. Entities such as the WRVCB will be included in the process, and if any water is suspected of not being used, such water will be identified as a potential opportunity.

SM

NvW concurred, but cautioned that the participation of the WRVCB should be as willing partner in the process since the objectives of the reconciliation study should not be unfairly and unilaterally enforced on any individual entity.

DK enquired whether the ICMA had anybody available which could act as representative of irrigators in general.

SM indicated that it would be preferable to have irrigation represented by Irrigation Boards themselves – whether the WRVCB or its individual subsidiary Irrigation Boards, or the Crocodile River Irrigation Board, but rather as Study Steering Committee members and not as members of the Technical Support Group.

NvW proposed that they be brought on board, but not as permanent members of a committee since the discussions would frequently fall outside their area of interest or jurisdiction. NvW proposed that they be included as *ad hoc* members when and as their participation in specific instances becomes important.

FG enquired whether participation from environmental groups would be invited, since they will likely wish to be informed of any process or decision, as well as be provided with the opportunity to provide inputs of their own. FG expressed the particular concern that certain intervention/augmentation options could be poorly received by environmental groupings.

NvW confirmed that the entire process should be as open as possible, with interaction from all affected parties being encouraged, and that the inputs from environmental groups has, in his past experience, generally been of considerable benefit.

SM added that all reconciliation options will be subjected to environmental screening, to be done by Iain Garrett of Aurecon, but that this will be specific to local augmentation options.

FG also suggested that the Ecological Flow Requirements be adjusted as a possible means of making water available, and being one water augmentation option.

SM agreed that alternative reserve scenarios could be an option for further investigation, but that the implementation of such scenarios falls outside the scope of the reconciliation study and the TSG. SM pointed out that there is a process of Classification whereby the reserve will eventually be finalized and which will incorporate stakeholder inputs, but that this is a separate process.

NvW concurred, stating that the TSG is not a decision-making committee, and can not make decisions on matters like reclassification of the reserve, but that information on alternative reserve scenarios can be investigated and made available to the appropriate bodies at the appropriate time for further consideration. Furthermore, the Reconciliation study has the advantage that there is a considerable volume of information on the area available from former as well as ongoing studies, and which link to the reconciliation study and to the investigation into the reserve.

5 TECHNICAL SUPPORT GROUP (TSG) MEMBERSHIP AND TERMS OF REFERENCE

NvW opened discussion of Item 5 by describing the function and composition of the TSG, namely that the TSG:

- acts as a project management committee which discusses technical matters related to the study
- provides technical advice to the Study Steering Committee, which has not been formed at the time of the meeting

A draft Terms of Reference and TSG member's list was made available to the meeting for perusal and further discussion, and is appended to these minutes. The TSG was requested to inspect the TOR and provide comments at a later stage if and as desired.

NvW enquired whether the meeting wished to point out any omissions from the TSG list.

BJ pointed out that there is no appointee in the sector Research.

SM stated that considerable research at Tertiary level was being conducted in the area of interest and asked for names of candidates who might be interested.

Following a brief discussion by the TSG, Eddie Riddell was nominated, provisionally and subject to confirmation, as a proposed addition to the TSG. FG enquired whether representatives from the irrigation and forestry sectors would be inducted into the TSG. NvW answered in the negative with regards to irrigation and forestry representation at TSG level, although agreed that both sectors should be represented at Study Steering Committee (SSC) level. BJ nominated Dennis Dlamini for inclusion, but NvW stated he was appointed at DWA:National level, with a very specific mandate which precluded him from inclusion into the TSG. A brief discussion was held regarding whether additional technical / WRM representation from DWA:NSP (SEA) is one option which might be considered in future for inclusion into the TSG but that he could not be nominated by the group, but should be nominated by his superiors in the DWA:NSP office — Johann van Aswegen or Patrick Ntabeni. David Maphothoma (DM) stated that the WRM component in the Nelspruit office is not very strong and that obtaining meaningful WRM support from the Nelspruit Regional Office might be problematic. FG was asked by SM whether he was the best person to represent Mbombela or whether somebody else, e.g. Pinkie Hermanus, should be nominated in his stead. FG responded that his name should be retained on the TSG for the time being but that he would confer with senior municipal management on the matter; specifically, the General Manager might wish to nominate himself or somebody else and has the decision making authority	DM
to do either but that, until such time as the matter has been resolved, FG should remain the entry point for the Mbombela's representation on the TSG. BJ nominated a representative from AWARD for inclusion in the TSG but it was agreed by NvW and SM to include them in the SSC and not the TSG. BJ nominated a representative from the Directorate: Water Quality Management since water quality does influence water availability. It was agreed that Geert Grobler could be invited for inclusion into the TSG.	SM
STUDY STEERING COMMITTEE (SSC) MEMBERSHIP AND TERMS OF REFERENCE The following persons and/entities were nominated for provisional representation on the SSC, although the list will be amended where and as appropriate or required.	

Industry and irrigation

Forestry: John Scotcher

Mbombela Chamber of Commerce

Sabie River Irrigators Crocodile River Forum

Crocodile River Irrigation Board

White River Valley Conservation Board and/or its subsidiary Irrigation Boards, on an ad hoc basis.

Government

Department of Cooperative Governance and Traditional Affairs (CoGTA)

Department of Agriculture

Mpumalanga Provincial Government

DWA: Water Quality Management

Mbombela Local Municipality

Ehlanzeni District Municipality

Environment

Wildlife and Environment Society of South Africa (WESSA)

Kruger National Park: Thomas Gyedu-Ababio Mpumalanga Tourism and Parks Agency (MTPA)

Other

Association for Water & Rural Development (AWARD)

Kevin Rogers in his private capacity

Mozambique, whether as permanent member or as honorary member to be kept informed of the study.

South African Local Government Association (SALGA)

The ICMA CMS Stakeholder list is to be perused for significant omissions from the above.

7	INPUT FROM REPRESENTATIVES (PERSPECTIVE, RELATED WORK, CHALLENGES, TIMEFRAMES ETC.)	
7.1	MBOMBELA MUNICIPALITY	
	FG stated that the TSG meeting will still have to be discussed by Mbombela's top management so that further inputs may be made only at a later stage.	
	FG pointed out, however, that a considerable volume of information is available which may provide useful information to the reconciliation study. Such information includes the smaller, recently completed, Mbombela water availability study, the Mbombela Water Master Plan completed by Aurecon in 2009, the Municipal Water Services Development Plan and the Spatial Development Framework.	DK/SM
7.2	DWA	
	Khumbu Moyo (KM) made available a document on the development of a water conservation and water demand management strategy for Mbombela municipality (The Development of Comprehensive Water Conservation and Water Demand Management Strategy and Business Plans - Domestic Sector: Mbombela Local Municipality (November 2008)). The only paper copy of the document was made available to DK, while all members of the TSG are to be given electronic copies before the next meeting.	DK/SM
7.3	ICMA	
	BJ stated that, during the course of the reconciliation study, additional information may become available which will have to be fed into the reconciliation study. These include the ICMA's Verification and Validation study and the Water Allocation Plan.	ВЈ
	BJ cautioned that the study may not be in conflict with the Water Allocation Plan, the Catchment Management Strategy or with the National Water Resources Strategy.	
7.4	MPUMALANGA PROVINCIAL GOVERNMENT	
,. -	Not represented at the meeting and did not provide additional inputs	
8	STUDY OUTLINE AND PROGRAMME	SM

The envisaged progress of the study was presented by SM and is appended to these minutes.

BJ asked whether the Water Requirements component (Item 3 in the appended Study Progress Plan) could make use of the ICMA's land cover database with 2.5m resolution, but only expected in or around April 2012.

SM responded that the investigation into irrigation will not form a large part of the study and information for water requirements will rely mostly on existing information. SM added that work on irrigation will include an investigation into irrigation efficiency, since increased irrigation efficiency could liberate water that might then become potentially available for trading as one reconciliation option.

FG enquired whether ancillary elements such as, e.g. costing, for Boschjeskop Dam would form part of the project; also, whether groundwater as an intervention strategy would be investigated; finally, whether intervention options would be assessed for viability.

DK confirmed that all options for intervention would be assessed for practical viability, including costing and environmental screening. DK also confirmed that the project would include a large groundwater component.

SM added to DK's comment by confirming the need for a large groundwater component which would include an investigation into surface water / groundwater interaction and the investigation into aquifer recharging as a possible water augmentation option.

9 COMMUNICATION DISTRIBUTION OF INFORMATION

No discussion was made on this item

10 GENERAL

No additional comments were presented

11 DATE OF THE NEXT MEETING

A date for the next meeting was provisionally set as 1 March 2012. The venue will be at either the Aurecon offices in Nelspruit. A time has not been set for the meeting.

AGENDA FOR 29 NOVEMBER 2011

WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA

TECHNICAL SUPPORT GROUP

Date: 29 November, 2011 Chair: Mr N Van Wyk

Time: 10:00

Venue: Aurecon, Nelspruit

Meeting Objectives

1. To explain what this study is about.

2. To explain what is expected from the Technical support Group.

- 3. To give the group an understanding of the water related problems in the Mbombela Municipal Area and the proposed way forward with this study
- 4. To outline the programme for the study and decide on future meetings.
- **5.** To establish communication channels

Item	Agenda Point	Discussion Leader/Presenter
1.	Opening and Welcome	
2.	Introduction of Attendees	N van Wyk
3.	Adoption of Agenda	
4.	Study Background	
	 Introduction 	S Mallory
	Study Area	
	 Crocodile (East) and Sabie catchments 	
	 Study management structures 	
	 ToR for the study 	
	Water Availability	
	Water Requirements	
	Water Balance	D Koekemoer
	Reconciliation options	
	• WCDM	
	Resource development	
	 Water trading 	
5.	TSG Membership and terms of reference	N van Wyk

6.	SSC Membership and terms of reference N van Wyk								
7.	Input from Representatives (perspective, related work,								
	challenges, timeframes, etc.):								
	Mbombela Municipality								
	. ,								
	• DWA								
	• ICMA								
	Mpumalanga Provincial Government								
8.	Study outline and Programme	S Mallory							
9.	Future Meetings and Date of Next Meeting N Van Wyk								
10.	Communication and Distribution of Information N Van Wyk								
11.	General								
12.	Date of next meeting								

ATTENDANCE REGISTER: 29 NOVEMBER 2011

				FRANCE CREYLING MBG	Brian Judson ICMA	Paul Gerdool IWR Woster	WERNER COMRIE RURECON	Mouse Lakewal Hurers	Fernocoly Mandage DWA	NIEI VAN WYK BWA	STEPHEN MALLOSTY WORL		(HAPPY MISHWANA MOOMSELA	NAME ORGANISATION	WATER REQUIREMENTS AND AVAILABIL	DEPARTN	
			+	MBOMBELALM (G		,		DWA (MMES)	SWA: NWRP O	Werter Resources 0		DWA (Mpumulany)	5	ATION	TY RECONCILIATION	DEPARTMENT OF WATER AFFAIRS	
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PROPOSED TIMELINE FOR THE STUDY

Prog	gramme																		
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Task		SEP		NOV	DEC	JAN	FEB	MAR	ADD	MAN		JUL	AUG	SEP	OCT	NOV	DEC	2013 JAN	FEB
1	Project management	SLF	001	NOV	DLC	JAN	ILD	IVIAR	AFK	IVIAT	JUN	JUL	AUG	JLF	001	NOV	DLC	JAN	ILD
2	Inception																		
3	Water requirements																		
4	Water Resources																		
5	Water Quality																		
6	Reconcilation Options																		
7	Stakeholder participation																		
8	Institutional capacity																		
9	Environmental screening																		
10	Economics																		
11	Skills Transfer																		
12	Reporting																		

DRAFT MEMBERSHIP LIST OF THE TECHNICAL SUPPORT GROUP

DEPARTMENT OF WATER AFFAIRS

Water Requirements and Availability Strategy for the Mbombela Municipal Area

PROPOSED TECHNICAL SUPPORT GROUP (TSG)

SECTOR	NAME	ORGANISATION
	Niel van Wyk	
	Kennedy Mandaza	National
National	Paul Herbst/Moyo Khumbo	
Government	Johan van Aswegen	Department Water Affairs
	David Mapthothoma	(Mpumalanga Region)
	Frans Greyling	Mbombela Municipality
Local	A coal! Death I	Mpumalanga Provincial
Government	Amali Rashke	Government
	Brian Jackson	Inkomati Catchment Management
	Bilaii Jacksoii	Agency
Research		
	Stephen Mallory	IWR Water Resources
PSP team	Dawie Koekemoer	Aurecon
	Werner Comrie	Aurecon

DRAFT TERMS OF REFERENCE FOR THE TECHNICAL SUPPORT GROUP

Technical Support Group (TSG)

DRAFT Terms of Reference

Water Requirements and Availability Strategy for the Mbombela Municipal Area

1. Introduction/Preamble

The water requirements of the Mbombela Municipal Area are growing rapidly due to population and economic growth. Strategies need to be developed to ensure continued supply of water for domestic and industrial use at an appropriate level of assurance into the future. To this end a study has been initiated by DWA referred to as the 'Water Requirements and Availability Strategy for the Mbombela Municipal Area.'

The primary objectives of this study are:

- To address the growing water demands as well as the water quality problems experienced in the catchment;
- To assess the current water availability and water deficit/surplus;
- To identify resource management and development options, and
- To recommend and sequence reconciliation interventions, both management and structural.

2. Management Structure and Arrangements

The direction and outcomes of this study will be monitored and controlled by a Study Steering Committee (SCC). The SCC will meet at approximately 6 monthly intervals. The SCC will be advised by a more focused Technical Support Group (TSG) to which this Terms of Reference pertains. The TSG will meet approximately every third month.

3. Functions

The functions of the Technical Support Group are:

- To discuss any technical aspects relating to the development of a Reconciliation Strategy
- To provide technical advice.
- To prepare technical communication material
- To prepare technical support information for the SSC
- To undertake specific technical studies identified by the SSC.

4. Representation

The TSG will have the following representation:

- DWA: National and Regional
- Mbombela Municipality
- Mpumalanga Provincial Government
- Inkomati Catchment Management Agency

The TSG will be supported by the Professional Service Provider who will be responsible for arranging all meetings and compiling the Reconciliation Strategy as it develops. Representation from other water users may be required on an ad hoc basis to give input on any issues pertaining to the Strategy.

5. Reporting

The TSG will report firstly to the SSC and relevant structures for which their members were coopted to be of service. This reporting will be firstly through the minutes of TSG meetings which will be complied by the PSP and secondly through presentations made to the SSC.

6. Meetings

It is envisaged that the TSG will meet every three months. Meetings will be held in Nelspruit.