

### **Directorate: National Water Resource Planning**

# CONTINUATION OF WATER REQUIREMENTS AND AVAILABILITY RECONCILIATION STRATEGY FOR THE MBOMBELA MUNICIPAL AREA

## (Crocodile Sabie River System Reconciliation Strategy)

Strategy Steering Committee (StraSC)

# MINUTES OF MEETING 1

Date: Thursday, 31 May 2018

**Time:** 10:00 . 14:00

Venue: Mkombo Boardroom, Department of Water and Sanitation (DWS) Offices, Procom House, Brown Street, Nelspruit

		ACTION
1.	WELCOME AND INTRODUCTION OF MEMBERS	
	The Chairman, Mr Patrick Mlilo (Department of Water and Sanitation (DWS), Director Integrated Water Resource Planning) welcomed everyone at the 1 <sup>st</sup> Strategy Steering Committee (StraSC) meeting for the Continuation of Water Requirements and Availability Reconciliation Strategy for the Mbombela Municipal Area, including the Crocodile and Sabie River systems.	
	He apologised for Mr Livhuwani Mabuda (DWS, Chief Director Integrated Water Resource Planning) who could not attend the meeting.	
	The members were given an opportunity to introduce themselves.	
2.	ATTENDANCE AND APOLOGIES	Attendance Register: Appendix A
	The attendance register is included as <b>Appendix A</b> . The following apologies were received:	
	<ul> <li>Ms Louise van Wyk</li> <li>Mr Robin Petersen</li> <li>Mr Geert Grobler</li> <li>Ms Riette Hallatt</li> <li>Ms Mashudu Mposi</li> <li>Mr Beason Mwaka</li> <li>DWS</li> </ul>	
3.	ACCEPTANCE OF AGENDA	
	The agenda, which was circulated prior to the meeting, was accepted.	
4.	PURPOSE OF THE MEETING	
	The Chairperson, Mr Mlilo commented that the DWS would like to introduce members to the Integrated Water Resources Management (IWRM) work which has been ongoing in the study area. He said water is everyone¢ business and that the	

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	<ul> <li>StraSC\$ role is to define the process forward. He stated the purpose of the meeting as follows:</li> <li>To introduce the study to all stakeholders;</li> <li>To establish and define the role of the StraSC;</li> <li>To receive an overview of study activities and the water balance status;</li> <li>To obtain feedback on strategy interventions; and</li> <li>To confirm StraSC membership.</li> </ul>	
5.	ROLE OF THE STRATEGY STEERING COMMITTEE (StraSC)	Presentation: Appendix B
	The Chairperson presented the role of the StraSC as per the Terms of Reference (ToR) which was distributed to all members before the meeting. He requested StraSC members to review the ToR and to provide their comments before the next meeting.	StraSC members to review the ToR and provide their comments.
	Discussion	
5a.	A member asked how stakeholders were identified for their participation in the StraSC? The Chairperson explained that the item of membership is dealt with under Item 11 of the agenda, however he requested attendees to provide the names of stakeholders which they believe should be part of the StraSC.	
6.	BACKGROUND AND INTRODUCTION OF THE STUDY	Presentation: Appendix B
	<ul> <li>Mr Kennedy Mandaza (DWS: Study Manager) provided the background and an introduction of the study and highlighted the following points:</li> <li>What is a reconciliation strategy?</li> <li>Background to the assignment with specific reference to the Reconciliation strategy for the Mbombela Municipal area which was developed in 2014;</li> <li>Outcomes of previous assignment and why the continuation and maintenance of the Reconciliation Strategy is required; and</li> <li>The role of Professional Services Providers (PSPs) appointed for the Study.</li> </ul>	
	Discussion	
6a	Mr Chris Foster (SAFCOL / Komatiland) asked if climate change was included in the previous work done and if it will be included for this study. Mr Mandaza responded that this study is part of IWRM which inherently considers climate change if conducted properly, however a specific climate change study has not been undertaken for the study area by the DWS. Mr Eddie Riddell (SANParks) shared that a study on climate change and its impacts for the next 25 . 30 years was completed by Schultz and Associates and recommended that the study team obtain the information. Dr Tendai Sawunyama (Inkomati Usuthu Catchment Management Agency (IUCMA)) informed the meeting that a methodology of assessing risks was developed by the DWS Directorate: Climate Change. He added that a provincial climate plan was also undertaken, which includes the impacts of climate change on the Ehlanzeni District. Dr Sawunyama suggested that the study team can obtain the information from Mrs Sibiya from the DARDLEA: Department of Agriculture. Dr Sharon Pollard (Association for Water and Rural Development (AWARD)) offered data that she has available for the neighbouring catchments on the impacts of climate change on stream flows of the catchments.	The study team will follow-up on the information mentioned.

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7.	CURRENT STATUS OF STRATEGY INTERV	ENTIONS	Presentation: Appendix B
	Mr Colin Talanda (Study Team) presented summary of the interventions which were ide Strategy. The presentations to follow will ela interventions identified.	ntified from the 2014 Reconciliation	
	Intervention Addressing Unlawful Irrigation Use (Compliance Monitoring and Enforcement	Primary Responsibility IUCMA/DWS	
	WC/WDM Urban WC/WDM in the Irrigation Sector and Relinquishing of Water Savings	City of Mbombela, Sembcorp & DWS DWS Head Office (HO)	
	Water Re-allocation Removal of IAPs	DWS HO & Regional Office (RO) Working for Water	
	Groundwater Development	City of Mbombela (CoM)	
	Operationalisation of the Reserve	DWS HO DWS RO, IBs, WUAs, CoM, BLM, KNP	
	Pre-Feasibility Study into Dams New Dam Constructed System Operating Rules for Sabie River Operating Rules for Primkop Dam	DWS HO DWS HO & Implementing Agency DWS HO & DWS R DWS HO, IUCMA, Irrigators and CoM	
7.1	IUCMA Validation and Verification Study		
	Dr Tendai Sawunyama (IUCMA) provided Validation and Verification (V&V) study which Catchment. He explained what validation is constitutes an existing lawful water use, what the projects previously undertaken, its benefits a summary he provided the following progress	is being undertaken in the Inkomati , the types of authorisations, what verification is as well as describing , outcomes and progress to date. As	
	<ul> <li>All properties were validated, and that properties. (These include old regis registrations).</li> </ul>		
	<ul> <li>12% of s35(1) Return to Sende</li> <li>44 % of s35(2) letters not response</li> <li>31 % of s35(4) verification done</li> </ul>	nded.	
	All Irrigation Boards were verified by set	ection s33 (2)	
	He concluded by reporting that a meeting will 2018 which will prioritise further study activities		
	Discussion		
7.1a	Mr Kennedy Mandaza (DWS) enquired that, what is the variation between the validation commented that it is difficult to provide the info management area of irrigation boards and tha	n and verification? Dr Sawunyama prmation of areas that fall outside the	

		ACTION
7.1b	Mr Louis Klapprott (Sembcorp) asked what is the percentage of water not verified? Dr Sawunyama responded that the detailed percentages will still be investigated, and he will provide such details at the next StraSC meeting.	Dr Sawunyama to provide an update on the V&V study at StraSC 2
7.2	City of Mbombela Water Conservation and Water Demand Management (WC/WDM)	Presentation: Appendix B
	Mr Koena Moabelo (City of Mbombela) provided an overview of the municipal WC/WDM Strategy, interventions implemented and details on their Non-Revenue Water reporting (refer to attached presentation).	
	Discussion	
7.2a	Mr Kennedy Mandaza (DWS) said that from DWS head office he would like to obtain confirmation from the DWS regional office and the IUCMA whether results of the WC/WDM initiatives implemented by the City of Mbombela can be confirmed. Mr Mlilo, Chairperson added that the StraSC would like to see if the municipality is making progress in terms of reduction in %eal losses+in the implementation of their strategy. Dr Sawunyama (IUCMA) responded that he believes that the municipality is progressing in the right direction. He said the challenge would be to compare the work done by the municipality to other areas to see the real impact of their implementation. He also suggested that %dosed systems+ such as White River should be targeted to measure progress as this area loses a lot of water.	
7.2b	Mr Marius van Rooyen (DARDLEA: Department of Agriculture) commented that he does not think that the percentage presented is correct as the amount of people in the area multiplied with 70 litres of water per day gives a much higher demand. He asked what is the percentage of water that should be provided for domestic use and what for agriculture/irrigation? Mr Moabelo explained that the WC/WDM strategy developed in 2013 is a five-year rolling strategy and that municipality is soon to appoint a consultant who will review the information and the results provided to date and to assess progress made by the municipality. Mr Theo Botha (City of Mbombela) added that the master planning was done, which highlights what the future demand will be. He said that the municipality does not take all the people living in their city boundaries and divide it by the amount of water available. He explained that different land uses and user needs are, for example, taken into consideration for planning purposes. Mr Mandaza (DWS) commented that planning for long term water availability takes a different approach to planning for daily municipal water needs and that this study requires long-terms averages that can be used for planning purposes.	
7.3	Bushbuckridge Local Municipality Water Conservation and Water Demand Management (WC/WDM)	
	This presentation will be provided at the next StraSC meeting.	
7.4	Working for Water: Removal of Invading Alien Plants (IAPs)	Presentation: Appendix B
	Mr Brendan Mashabane (Department of Environmental Affairs (DEA) presented an overview of the activities of the Working for Water Programme (WfW) in the study area. In his presentation he highlighted the footprint of the activities of the WfW	

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	programme which are included in the study area as well as the summary of the number of hectares cleared. Mr Mashabane concluded his presentation by saying that the programme should have targets to monitor how many hectares were cleared and how much water was saved. Refer to attached presentation.	
	Discussion	
7.4a	Dr Sharon Pollard (AWARD) asked whether the clearing of invading alien plants (IAPs) form part of this Reconciliation Strategy¢ interventions? Mr Colin Talanda (Study Team) explained that the clearing of (IAPs) is an intervention of the strategy. He added that the South Africa National Biodiversity Institute (Sanbi) has a database of IAP areas for catchments, however it is important to obtain information on how the areas have changed through clearing. Dr Pollard also commented that as water becomes available through the clearing of IAPs, it is unlawfully taken-up by downstream users. She said that the water which becomes available due to the clearing of invading alien plants needs to be managed to ensure it ends up where it is needed.	
7.4b	Mr Andre van der Merwe (Crocodile Irrigation Board) remarked that landowners are uncertain as to their responsibility with regards to the follow-up clearing of invading alien plants. He suggested that the Working for Water programme should clarify this with landowners on land which is being cleared.	
7.5	DWS Feasibility Study for Identified Dam Options	Presentation: Appendix B
	Mr Kobus Bester (DWS) provided an overview of the investigation for the possible construction of a dam in the Crocodile East catchment. In his presentation he highlighted the water availability from the existing dams which are serving the Mbombela area, the water demand centres, the projected future water balance of the Crocodile catchment as well as the departments methodology for planning investigations for new dams. He gave a summary of the planning work which was undertaken to date, including the proposed studies to be undertaken as part of a broader feasibility assessment. The possible dam options which were identified for further investigations were explained as well as the proposed way forward which can be summarised as follows:	
	• Due to budget constrains no funds were made available for the 2018/2019 financial year for the Feasibility Study, however a decision was taken to allocate at least R100 000 so that a Professional Service Provider can be appointed in this financial year to kick-off the Feasibility Study.	
	• It is expected that the Technical Feasibility Study and EIA will start in the 2019/2020 financial year and end 2021/2022 financial year.	
	• Pre-implementation activities such as; detailed design, securing of funding for the project, and agreeing on institutional arrangements, normally take about 2 years to be concluded. Budget required will be about R100 million.	
	• Dam construction takes normally about 3-4 years to complete after the pre- implementation activities. The Capital Expenditure (Capex) will be about R1 billion.	
	• The first water delivery from the project can be expected by 2027/28.	

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	Discussion	
7.5a	Mr Dawie van Rooy (Crocodile Irrigation Board) asked what the status of water use conversions was? Mr Kennedy Mandaza (DWS) explained that the IUCMA and the DWS Regional Office (RO) were assisting the municipalities with converting irrigation water use to municipal water use as part of the process for water use license application. Mr Stephen Mallory (WRVCB) said no new licences were being awarded by the DWS and that is why water conversions or water trading is taking place and that he believes the National Water Act makes provision for that. Mr Sydney Nkuna (DWS) said that the DWS regional office has received a legal opinion that water trading is not allowed. Water can only be surrendered to the State and not be traded between different water users. Mr Mallory added that water trading between water users was the main strategy in the area to ensure that development could continue. Mr Theo Botha (City of Mbombela) said that no additional %aw+ water is available in the study area and that water rights from landowners are traded for further development. He urgently requested the legal opinion from the DWS for their review and information. He added that in their opinion water trading was a possible option and they would not like to be inaccurate in their assumption and mislead developers with the possibility of water trading. Mr Patrick Milio (DWS) requested the DWS and the City of Mbombela to urgently discuss the matter. Mr Nkuna asked members to review Section 25 (1) and Section 25 (2) of the National Water Act in terms of water trading.	DWS and the City of Mbombela to meet and discuss the legal opinion on water trading.
7.5b	Mr Eddie Riddell (SanParks) asks what the pricing strategy would be if the dam will be costing R1 billion? He also wanted to know at what point will the integrated operating rules for the large dams in the catchment be determined? Mr Bester responded that the integrated operating rules will be determined early in the process and later as information becomes available the rules are refined. A specific division in the DWS specialises in the development of operating rules for dams. The pricing strategy is still to be investigated.	
7.5c	Dr Tendai Sawunyama (IUCMA) commented that South Africa also has to deliver water to Mozambique and the need for the development of a new dam has to be investigated and prioritised from an international perspective. Mr Kennedy Mandaza (DWS) said that the development of the first Reconciliation Strategy was localised and only for the Mbombela municipal area, however this phase of the study is looking at a broader area, which includes the Crocodile and Sabie River systems in order to have a better understanding of the regional water balance, making it possible to accommodate all users including international obligations.	
7.5d	Mr Dawie van Rooy (Crocodile Irrigation Board) provided an overview of the area managed by the irrigation board and its activities. He said that the irrigation board works closely with the IUCMA in the management of the water supply system. He said that all water users in the irrigation board management area are metred and that sufficient water is generally available, shortfalls are, however, experienced in winter months. Irrigators can become more water efficient, however, new technologies are being introduced that are far more water efficient.	

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8.	OVERVIEW OF STUDY ACTIVITIES	Presentation: Appendix B
	Ms Ingrid Nleya (Study Team) presented the following in terms of the study activities which are being undertaken:	
	<ul> <li>Study area and the changes to the area since the development of the 2014 Reconciliation strategy;</li> </ul>	
	The organisation of the study team and the role of all team members; and	
	The study tasks and a description of each task.	
9.	CURRENT PROGRESS	Presentation: Appendix B
9.1	Economic Growth and Demographic Analysis (Task 2)	
	Mr Russell Aird (Study Team) provided an overview of the assessment undertaken to determine the potential economic growth and demographics in the study area. His presentation focussed on results from the updating, refining, and reviewing of the population and growth modelling undertaken previously for the Reconciliation Strategy completed in 2014. The Demographic Analysis included the Mbombela Local Municipality (LM), Barberton as well as the Bushbuckridge LM Area. The outcome of his assessment assist in determining the existing and possible future size and distribution of the population for the high and realistic water requirement scenarios.	
	Discussion	
9.1a	Mr Eddie Riddell (SANParks) asked whether the results of the study would be used as a driver to increase the demand for water in the study area? Mr Aird agreed and said it will be a driver to determine future demand.	
9.1b	Mr Sydney Nkuna (DWS) said that the proposed development of a dam should be prioritised to take place sooner as well as additional development of groundwater. He remarked that groundwater in certain areas are already over utilised and that the sustainability of the resource should also be considered. He said the fact that there is not sufficient water to allocate is a real challenge.	
9.1c	Dr Tendai Sawunyama (IUCMA) requested that Malelane and Sabie should be included in the study area. He also asked whether the hydrology will be updated from the previous study as he believes it is critical to include the 2015/16 dry period experienced to have a balanced picture on the hydrology. He shared with the meeting that the IUCMA is developing a groundwater strategy as it seems that little factual information on groundwater in the study area is available. Mr Patrick Mlilo, Chairperson commented that governance models with regards to the management of groundwater is also very important.	
9.2	Water Requirements and Return Flows (Task 3)	
	Mr Colin Talanda (Study Team) provided an overview of the water requirements and return flows in the study area. The current and future water requirements for the different water use sectors were highlighted, including urban and industrial, irrigation and afforestation, invasive alien plants, Ecological Water Requirements (the Reserve) and international obligations. Updated projections based on latest	

		ACTION
	water use and revised demographic projections for the City of Mbombela, Barberton and Bushbuckridge local municipalities and the latest information available for the remaining study area and other water use sectors were presented. The information gathered as part of this assessment will inform the Water Resource Analysis which in turn will assist in the development of a decision support system.	
9.3	Water Conservation and Water Demand Management (WC/WDM) (Task 4)	
	Mr Colin Talanda (Study Team) presented the assessment approach to review the status quo of WC/WDM in the respective water supply systems and the progress to date. He mentioned that the WC/WDM task was in the initial stages. The status qua assessment will include an update of the IWA Water Balance for each of the supply systems, an assessment of the progress made with the implementation of existing WC/WDM strategies and a review and updated of the target savings. The water supply systems in the City of Mbombela and Bushbuckridge LM were covered. Several challenges were experienced and described by Mr Talanda. An updated WC/WDM plan will be delivered from this task.	
	Discussion	
9.3a	Dr Sharon Pollard (AWARD) mentioned that the development of a WC/WDM strategy is an involved task and wanted to know how well developed this plan would be as many opportunities for WC/WDM exist. Mr Mlilo, Chairman said this study is not responsible for the development of an all-encompassing WC/WDM strategy, but rather reflect and support WC/WDM initiatives, for example, the Working for Water Programme, work done by municipalities and the irrigation sector. He concluded by saying that this study will reference WC/WDM implementation and assess the impact thereof.	
10.	COMMUNICATION AND CONFIRMATION OF StraSC MEMBERSHIP	
	The Chairman requested SSC members to review the Term of Reference which was distributed to them before the meeting and asked them to return their comments before the next SSC meeting. He invited members to provide additional information to the Study Team of stakeholders who should be involved in the study through the StraSC.	
	The minutes of the meeting will be compiled and distributed with a copy of the presentations delivered to all members of the StraSC.	
11.	DATE OF NEXT MEETING	
	The next meeting will be on Thursday, 22 November 2018 from 10:00. 14:00.	
12.	CLOSURE	
	The Chairman thanked all members of the StraSC who attended the meeting and confirmed that an invitation to the next meeting will be send to all in due course.	

**Attendance Record** 

### List of Attendance: SSC Meeting #1, 31 May 2018



water & sanitation

Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA

# ATTENDANCE REGISTER Thursday, 31 May 2018

Reconciliation Strategy for the Mbombela Municipal Area including the Crocodile Continuation of water requirements and availability and Sabie River Systems

Strategy Steering Committee (StraSC) Meeting 1

Mkombo Boardroom, DWS offices, Floor 5 Procom House, Brown Street, Nelspruit

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