

# water affairs

Department: Water Affairs **REPUBLIC OF SOUTH AFRICA** 

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

## Development of a Reconciliation Strategy for the Luvuvhu and Letaba Water Supply System

#### **STUDY STEERING COMMITTEE – MEETING 3**

**Draft Minutes** 

DATE:Wednesday, 31 October April 2012TIME:09:00 - 13:20VENUE:Tzaneen Country Lodge, Tzaneen

1.	WELCOME AND INTRODUCTION	ACTION
	The Chairperson and Study Manager, Mr Tendani Nditwani (Department of Water Affairs– DWA) welcomed all members to the third meeting of the Study Steering Committee (SSC) for the development of the Luvuvhu and Letaba Water Supply System Reconciliation Strategy (LLRS).	
	Mr Nditwani announced that consultative workshops are being held all over the country to discuss the second edition of the National Water Resource Strategy (NWRS). He invited all members on behalf of the DWA to attend the workshop planned for Limpopo on 21 and 22 November 2012. The first edition of the NWRS (NWRS-1) was published in 2004 and set out the 'blueprint' for water resources management in the country for the first time. This second edition (NWRS-2) sets out the strategic direction for water resources management in the country. Visit the NWRS website ( <u>http://www.dwa.gov.za/nwrs/NWRS2012.aspx</u> ) for more details.	
	(All presentations will be sent out with the final set of minutes. Visit the study website <u>http://www.dwa.gov.za/Projects/Luvuvhu/default.aspx</u> for more information.)	
2.	ATTENDANCE AND APOLOGIES	
	The attendance register can be found at the back of this document.	
	The following apologies were received:	
	Peter van Niekerk, Integrated Water Resource Planning, DWA	
	Johan van Rooyen, National Water Resource Planning, DWA	
	Paul Herbst, Water Use Efficiency, DWA	
	Jakkie Venter, National Water Resource Infrastructure, DWA	
	WandileNomquphu, Water Research Commission	
	Hanli du Plessis, Office of the Limpopo Premier	
	Johan Kruger, Limpopo Department of Economic Development, Environment and Tourism	
	ItumelengLedwaba, Mopani District Municipality	
	PhungoyavhoMaginya, Mutale Local Municipality	
	LabaneLeballo, LepelleNorthern Water	

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		aMphachoe, Lepelle Northern Water	
		South African National Biodiversity Institute	
	Johan de G	Graaf, Northern Timber.	
3.	MEETING	OBJECTIVES	
	the study a reconciliation	ni reiterated the objectives of this study which are to address the growing water demand in rea, identify serious water problems, identify resource development options, provide on interventions (structural and administrative/regulatory) and facilitate communication then the partnership between the DWA and key stakeholders.	
4.	ACCEPTA	ANCE OF AGENDA	
	The agenda	a wasaccepted.	
5.	APPROVA	AL OF MINUTES	
		es were approved with minor changes. Mr Ockie van den Berg (DWA) reminded the at he was present at the last meeting, although his name does not appear on the register.	
6.	MATTERS	S ARISING FROM THE PREVIOUS MINUTES (SSC 2 ON 25 APRIL 2012)	
	Items 6.1 to	o 6.11 have been included in Item 9 (Summary of possible intervention options).	
	6.1.	8.a) Areas outside the WMA such as Makhado, and Polokwane must be considered part of the study area although located outside the catchments.	
	6.2.	8.a) The Sand River must be added to the list of water resources.	
	6.3.	8.a) Rain water harvesting must also be investigated as a potential water resource for the Vhembe district.	
	6.4.	8.a) Water re-use must also be investigated for the study area.	
	6.5.	8.a) The proposed dam site upstream in the Lutanandwa River should be moved downstream below the confluence with the tributary from Tshakuma Dam.	
	6.6.	8.a) The planned developments in the Upper Luvuvhu Basin should also be included in this study.	
	6.7.	8.b) Downstream from the proposed dam site on the Mutale River is a more suitable area to build a dam using the surrounding mountains that must be investigated.	
	6.8.	8.b) The demand from the Limpopo communities and new mines within the Mutale Basin must be considered as possible users for identified dams in the Lower Mutale as the Limpopo River is in general not a good source of water.	
	6.9.	8.d) Yield modelling must be done to see if the proposed Hobson's Choice Dam (GL4) is viable.	
	6.10.	8.d) The Thabina River was investigated years ago for primary water use which can also be mentioned in this report.	
	6.11.	8.d) The proposed pipeline from the Middle Letaba Dam to the Nsami Dam should rather be moved to the west of Giyani.	
	6.12.	8.d) The slide of the proposed pipeline route to Nsami Dam must be corrected. (This was done).	
	6		

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	6.13. 10.) The Terms of Reference and summary of what is expected of SSC members must be presented on a slide for the next meeting along with a list of all SSC members. (Will be covered under Points 15 and 16).	
	6.14. 10.) The Department of Rural Development and Land Reform must be invited. (This was done).	
	6.15. 12.) Mr André Venter will send a document with surface and groundwater impacts on flow in the study area to Mr Pieter Van Rooyen. (This was done).	
7.	STATUS AND RECAP SINCE THE PREVIOUS MEETING	
	Mr Nditwanipresented the current status of the study. The next big step in this process is the Preliminary Reconciliation Strategythat will be discussed at the next SSC meeting during the second half of 2013.	
8.	PROGRESS ON STUDY TASKS	
	Mr ManieMaré (Study Team)informed members of the progress made with the various tasks in the study broken down into: • Tasks completed;	
	<ul> <li>Tasks completed,</li> <li>Tasks in process; and</li> </ul>	
	Future tasks.	
	Discussion	
8a	Mr Jan Potgieter (Department of Agriculture, Forestry and Fisheries– DAFF) enquired if irrigation schemes and the various refurbishments done on these schemes have been included in the Inception Report?	
	Mr Maré replied that irrigation is listed in the Inception Report, but it has not yet been studied. When irrigation will be studied, then all water conservation and water demand management options such as refurbishment will also be listed to possibly reduce water use.Mr Nditwani added that all available agricultural data (such as RESIS Programme) will be used to work out current irrigation use.	
8b	Mr van den Berg reminded the meeting that the objective of this study is to investigate opportunities.	
9.	SUMMARY OF POSSIBLE INTERVENTION OPTIONS	
	Mr Pieter van Rooyen (Study Team) presented possible intervention options that should cover at least the next 40 years planning horizon in the study area. Typical interventions could include:	
	Water conservation and water demand management;	
	Optimal system operation;	
	Adjusting assurance of supply;	
	<ul> <li>Trading of water use allocations;</li> <li>Rainfall harvesting;</li> </ul>	
	Water re-use; or	
	Augmentation schemes.	
	Discussion	
9a	Mr Louis van Rooyen (Letaba Water Users Association) wanted to know if there are any statistics available for the Nandoni Dam.	
	Mr Nditwani estimates that Nandoni Dam would be delivering approximately 76 million m <sup>3</sup> /a of which approximately 67 million m <sup>3</sup> /a is already targeted for specific demand centreswith around 5 million m <sup>3</sup> /a that must be transferred to the Middle Letaba and another two to three million m <sup>3</sup> /a destined for	

	Matoks. It is therefore clear that most of the water has already been accounted for. Water must also be released for the ecological reserve and users downstream of the Nandoni Dam.	
	<i>Mr</i> Pieter van Rooyen cautioned that the hydrological task of this study must still be completed to confirm the figure of 76 million $m^3/a$ .	
9b	Mr van den Bergcommented that the Ministerial approval for the Groot Letaba River Water Development Project also includes approval to raise the Tzaneen dam wall.	
9c	Mr Louis van Rooyen asked for more information regarding GL5 which is the artificial recharge on the Molototsi River in the Groot Letaba Catchment.	
	Mr Pieter van Rooyen explained that there are aquifers that can be utilised. Mr van den Berg added that the DWA mentioned the possibility of a series of small dams to recharge the aquifers.	
9d	Mr van den Berg added that the Luvuvhu Letaba Water Supply System is a very complex system with a number of subsystems which are not linked at the moment. The DWA is investigating how these subsystems can be linked to avoid having a surplus in one and a shortage in a neighbouring system.	
10.	DEMOGRAPHIC SCENARIOS	
	Mr Russell Aird(Study Team)explained that population growth and future economic development as well as population distribution scenarios form the basis of determining the possible future water needs for a specific area. He approached this task by collecting, analysing and interpreting as much data as possible to form a baseline database with population and economic land use statistics. This was followed up with the development of growth scenarios after which modelling and a sensitivity analysis were done to provide future population and economic statistics for the next 40 years.	
	Mr Aird assured members that the recently published results of Census 2011 will be used to update his information.	
	Discussion	
10a	Dr Thomas Gyedu-Ababio (Kruger National Park) commented that the people (officials and visitors) inside the Kruger National Park also need water and their populations will also increase in future and must, therefore, be included in this study.Mr Aird said they will be included.	
11.	RAINFALL ANALYSIS	
	Mr ManieMaré (Study Team) presented the recently completed rainfall data analysis report which used the Water Resources of South Africa 2005 Report (WR2005) as its main source of information.	
	Some of the conclusions of this analysis are that the quality of the catchment rainfall records are acceptable to good in the western part of study area, while the eastern parts were fair to acceptable. In some catchment rainfall zones there were no rainfall stations within the zone. There has been a big decline in rainfall collecting points in the study area. Of the 96 stations evaluated in 2005, only 39 were still active in 2010.	
	Discussion	
	No discussions were needed.	
12.	WATER QUALITY AND WATER RE-USE FEEDBACK	
	Mr Trevor Coleman (Study Team) reported that most of the study area has water of very good qualitybased on the available surface water quality and point source discharge data in the study area were collated and assessed. The data from 62 water quality monitoring points were used.	

	Water quality concerns include:	
	<ul> <li>Elevated nutrient concentrations; in particular phosphorus in sections of the rivers downstream of urban areas and intensive irrigation areas;</li> </ul>	
	<ul> <li>Bacterial pollution was also identified and raised as a concern in sections of the river. The bacterial pollution is associated with urban runoff and wastewater treatment plant discharges; and</li> </ul>	
	• Exceedances of the sodium and chloride water quality guidelines in the lower reaches of the Groot Letaba River.	
	The sewage discharges in the study area are not large, so the potential for specific re-use schemes of treated effluent as a possible intervention option is low. Another concern is that the waste water treatment works would have to be significantly upgraded for direct re-use up to potable or even industrial use.	
	Discussion	
12a	Mr Louis van Rooyen enquired about microbial data in the Groot Letaba River. Mr Coleman explained that there is no data available.	
12b	Mr Nditwani commented that this presentation shows that this system still has water of good quality. We must keep it that way and improve the quality even further with all the planned interventions.	
13.	CLASSIFICATION OF WATER RESOURCES AND THE DETERMINATION OF RESOURCE QUALITY OBJECTIVES IN THE LETABA CATCHMENT	
	<i>Mr</i> Rufus Nengovhela (DWA) informed the meeting of a new study: the classification of water resources and the determination of resource quality objectives (RQOs) in the Letaba Catchment. The classification of our water resources is required by the National Water Act (NWA) and will help in maintaining the desired state of the water resources by setting a Management Class (MC) for every significant water resource. A MC facilitates the balance between protection and use of the water resources.	
	The NWA states that the purpose of RQOs is to establish clear goals relating to the quality of the relevant water resources. It also stipulates that in determining RQOs, a balance must be sought between the need to protect and sustain water resources and the need to use them.	
	Discussion	
	No discussions were needed.	
14.	WATER CONSERVATION AND WATER DEMAND MANAGEMENT - MUNICIPALITIES	
	Mr Willem Wegelin, Ms ZamaSiqalaba, and Mr Nsika Zondo(Study Team) presented the water conservation and water demand management (WC/WDM) taskfindings of this study to the SSC. The objectives of WC/WDM are:	
	<ul> <li>To make more effective and efficient use of the existing and available water resources by all water use sectors in the study area;</li> </ul>	
	<ul> <li>To develop realistic water saving targets for the respective water use sectors and quantify the impact on current and future water requirements in the study area;</li> </ul>	
	<ul> <li>To enable the authorities to "free-up" additional water, which can be put to beneficial use in the public interest;</li> </ul>	
	<ul> <li>To conserve water and avoid or delay the implementation of further expensive schemes for transfers and storage which may not be necessary if water is used efficiently; and</li> </ul>	
	To provide necessary information to support the implementation of compulsory licensing and	

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	related water allocation reforms.	
	The district and local municipalities in the study area face numerous challenges regarding WC/WDM that has been divided into four main areas of concern:	
	Institutional;	
	• Financial;	
	Social; and	
	Technical.	
	The aggregate adjusted capital budget for all South African municipalities in the 2011/12 financial year was R46 billion of which only R33.2 billion or 72.5 % had been spent by 30 June 2012. This reflects the challenges of planning for the implementation of capital projects. The status quo makes it difficult to motivate for additional funding, specifically for WC/WDM. Municipalities need to improve budgeting and prioritise.	
	The benefits of WC/WDM to municipalities include:	
	Improved level of service;	
	Increased revenue and affordability;	
	Improved customer relations;	
	Educated and water efficient customers;	
	Job creation;	
	Water security;	
	Asset management;	
	Improved corporate governance; and	
	Improved institutional arrangements.	
	Discussion	
	No discussion was needed.	
15.	DISCUSSION AND ISSUES	
15a	Mr Bernie Badenhorst (DWA) asked for a combined 15 minute presentation of the study to share with other forums in the study area. Mr Nditwani asked the study team to have such a presentation ready by 30 November 2012.	Study Team
15b	Mr Louis van Rooyen commented that it is difficult to read the presentations that have been printed four slides to a page. He suggested that the slides with detailed graphics be printed on only one slide to an A4 page for the next meeting. Mr Nditwani replied that this will be done for the next SSC meeting.	Study Team
15c	Mr Badenhorst commented that there is not enough capacity in municipalities and this is the main reason for municipalities not being able to spend their budgets as well as contributing to pollution in rivers. We must make a concerted effort to make municipalities efficient.	
15d	Mr Nditwani announced that although Polokwane falls outside the study area, it receives water from there and the Capricorn District Municipality will therefore be drawn into this SSC.	
15e	Mr Pieter de Witt (Limpopo Department of Agriculture) commented he gets the idea that water resource studies are just playing catch-up up to a specific date in the future and do not care about what happens after that date.	

	Mr Nditwani responded that a management effort is needed with all of us taking part in solving problems related to the management of water resources. All water resource management studies are carefully planned to provide sufficient water in a specific catchment.	
16.	SSC TERMS OF REFERENCE FEEDBACK	
	Mr André Joubert (Study Team) briefly highlightedwhat is expected of members of this committee.	
17.	CONFIRMATION OF MEMBERSHIP OF THE LUVUVHU AND LETABA SSC	
	Mr André Joubert (Study Team) asked SSC members to contact him with the names of organisations of people who can add value to this SSC.	
18.	GENERAL	
	Nothing was discussed under this point.	
19.	DATE OF NEXT MEETING	
	The next SSC meeting will be onWednesday, 23 October 2013.	
20.	CLOSURE	
	Mr Nditwaniended proceedings by providing a recap of what was discussed today.He thanked all members on behalf of the DWA for attending the meeting.	

### Attendance Register – 31 October 2012

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