



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Development of the Limpopo Water Management (WMA) Area North Reconciliation Strategy

Study Steering Committee (SSC) Meeting No. 2: Minutes

Held at The Mogol Club, Lephalale at 09:00 on Tuesday, 18 August 2015.

1 WELCOME AND INTRODUCTION	ACTION
<p>The Chairperson of the meeting, Mr Tendani Nditwani (Department of Water and Sanitation (DWS)) welcomed all to the second meeting of the Study Steering Committee (SSC) for the study to develop a Reconciliation Strategy for the Limpopo Water Management Area (WMA) North.</p> <p>He highlighted the purpose of the meeting to be as follows:</p> <ul style="list-style-type: none"> • Strengthen partnership between the DWS and key stakeholders; • Update stakeholders on the progress of the study; • Screen possible management intervention options and to identify the preferred options. <p>Mr Nditwani explained that the study covers the northern parts of the WMA - the Matlabas, Mokolo, Lephalala, Mogalakwena, Sand and Nzhelele/Nwanedzi catchments. The other catchments of the newly demarcated (2012) Limpopo WMA, the Luvuvhu and the Crocodile West/Marico, are being addressed in other Reconciliation Strategies.</p> <p>Members were referred to the information packages and the Chair noted that the information was e-mailed to them and that it will soon be available on the DWS web-site.</p>	
2 ATTENDANCE AND APOLOGIES	
<p>Members introduced themselves. Appendix A lists all members who attended and those who apologised.</p>	
3 ACCEPTANCE OF THE AGENDA	
<p>The agenda was accepted without any additions.</p>	

4 APPROVAL OF MINUTES FROM SSC 1 (18 FEBRUARY 2015)	
<p>The minutes of the previous meeting (SSC 1) held on 18 February 2015 were accepted with only one suggested change:</p> <p>Item 6.3 d.) Mr Gerald de Jager (AECOM) added the underlined words in the following statement:</p> <p>Mr Gerald de Jager (Study Team) noted his experience with regards to the potential impact of climate change on surface water and said that the preliminary results show that the South Western sides will get dryer, and North Eastern sides <u>of the country</u> probably wetter, with more variability in rainfall patterns.</p>	
5 MATTERS ARISING FROM SSC 1	
<p>All the items listed under matters arising in the previous meeting minutes were dealt with under allocated items in the agenda.</p>	
6 STATUS AND RECAP SINCE THE PREVIOUS MEETING	
<p>Mr Tendani Nditwani (DWS) presented an overview of the study, its objectives and the key areas, which will be investigated to formulate the Reconciliation Strategy for the Limpopo WMA North. He emphasized the roles and responsibilities of the SSC members in the development of the Strategy and provided a summary of the main points, which were discussed during SSC 1.</p>	
<p><i>Discussion</i></p>	
<p>(a) Mr Cobus Bronn (Coal of Africa) asked whether the Reconciliation Strategy for the Limpopo WMA North will be reviewed once developed and he enquired about the intervals for review. Mr Tendani Nditwani (DWS) responded that in general it takes approximately three years to develop a Reconciliation Strategy for an area. The maintenance/continuation phases follow the development of the Strategy, which also are undertaken over three year periods. During the maintenance/continuation phases, the Strategy is revisited and reviewed to ensure that the information remains current. The maintenance/continuation phases will include measures of monitoring to ensure the upkeep of the Strategy and its implementation. Mr Nditwani invited SSC members to visit the DWS web site to familiarise themselves with examples of other studies, e.g. the Crocodile West Water Supply System. Mr Witold Jezewski (DWS) added that with every new phase of a study the planning horizon also moves on. For example when the Crocodile West study was started, the planning horizon was until 2025. In the current maintenance phase, planning horizon is towards 2040.</p>	

<p>(b) Mr James Hayes (Vhembe Forum) remarked that it seems that the Limpopo WMA North Reconciliation Strategy will be finalised by 2017. He asked whether the DWS will make key decisions at the time of the completion of the Strategy. He also requested an explanation as to the mandate of the finalised strategy and how decisions will be taken. <i>Mr Tendani Nditwani (DWS) explained that the aim of development and maintenance of the Reconciliation Strategy is to have a planning tool and information at hand to support the decision-making process. The SSC recommends decisions to the DWS Management who ultimately takes decisions. The SSC is a forum representative of key stakeholders of all sectors who should make recommendations in the best interest of the study area.</i></p>	
<p>7 PROGRESS ON STUDY TASKS</p>	
<p>Mr Gerald de Jager (AECOM) presented a summary of the tasks to be undertaken as part of the development of the Reconciliation Strategy and the progress, which was made with each task. Please refer to Appendix B for the slides that were presented.</p>	
<p><i>Discussion:</i></p>	
<p>(a) Mr Lance Fenn (Limpopo Economic Development Agency) asked why Research and Development is not a specific task of the development of the Reconciliation Strategy. <i>Mr Gerald de Jager (AECOM) responded that research and development is not a specific task, but that each study task has an element of research and development. He explained that new technology, for example, Water Conservation and Water Demand Management (WC/WDM) in the irrigation sector, is reviewed as part of the WC/WDM task.</i></p>	
<p>(b) Ms Ledile Mashilwane (Limpopo Office of the Premier) asked whether aging infrastructure is investigated as part of the WC/WDM task. <i>Mr Gerald de Jager (AECOM) said that investigating aging infrastructure could be a possible intervention option which could be included in the strategy. He explained that the mandate of the strategy is planning and that aging infrastructure and the issues around that is a water services function. He said investigating aging infrastructure and the impact that it may have on water losses could become a recommendation of the strategy as part of the WC/WDM task.</i></p>	
<p>(c) Mr Glen Steyn (AECOM) emphasized the importance of water quality towards planning for sufficient water quantity. He suggested that the study investigates the water quality of the available water as quality issues may decrease the actual volumes available for certain uses.</p>	<p>Study Team</p>
<p>7.1 IRRIGATION</p>	
<p>Mr Antonie van Staden (Vhembe Forum) delivered a presentation (see Appendix B) on the possibilities to reduce the volumes of water for irrigation through greenhouse production. He also presented a proposed project in the Vhembe area, which is currently being investigated.</p>	

Discussion	
<p>(a) Mr Lance Fenn (Limpopo Economic Development Agency) asked why certain areas are no longer used for agricultural production as was highlighted in the presentation by Mr Van Staden? <i>Mr Van Staden responded that a lack of knowledge, redistribution of land and the process thereof take time and the changes in land use might be influencing factors.</i></p>	
<p>(b) Mr Johan Rossouw (AECOM) asked why could the presented greenhouse technology not be introduced in other areas of the country? <i>Mr Van Staden (Vhembe Forum) responded that it takes a mind shift to change to such practices and he added that the Vhembe area has the ideal climate for this technology.</i></p>	
<p>(c) Mr Pieter de Witt (Limpopo Department of Agriculture and Rural Development) asked whether the privately funded report, which Mr Van Staden mentioned in his presentation, includes for accounting of domestic water requirements. <i>Mr Van Staden said that the report investigated water (surface and groundwater) available for agriculture.</i> Mr Johan Rossouw (AECOM) asked whether the report could be made available for inclusion as part of the Reconciliation Strategy development. <i>Mr Van Staden responded that the information of the report could be shared if the DWS buy into further funding reports to deepen the investigation.</i></p>	<p>Antonie van Staden</p>
<p>(d) Mr Rexon Mtileni (DWS) asked what is meant by “new water” as per the presentation and he requested that the report be made available in order to validate the water availability referred to. <i>It was said that the water use figures presented should be looked at cautiously as the existing lawful water use has to be verified. Mr Van Staden said that he is willing to further discuss matters with the study team.</i></p>	
<p>(e) Mr Cobus Bronn (Coal of Africa) noted that irrigation accounts for 80% of water used in the study area and asked whether the proposed greenhouse technology will result in a saving of the allocation to irrigation. <i>Mr Van Staden said that the technology results in the saving of water per hectare, but that the proposed project presented would need the savings for further development of greenhouses, which in turn will benefit the area in a number of other ways, e.g. job opportunities, increased food production, etc. He concluded that the technology allows for more efficient use of water, which in turn saves water for further development.</i> Mr Bronn further asked why the project focus is on HDIs and what prevents any other commercial operations to implement the technology? <i>Mr Van Staden said that he believes that agriculture should not just be linked to commercial farming as it has been known in the past in South Africa, that agriculture should be developed to benefit all South Africans. If HDIs are entering the market, they should enter it with the best available technology. The cost associated with greenhouse technology is expensive and partnerships to allow the use of the technology are important.</i></p>	

<p>(f) Mr Pieter de Witt (Limpopo Department of Agriculture and Rural Development said that from the Department of Agriculture the proposal is supported, however, he cautioned that with the intensification of production, the risk also intensifies. He said that if you have, for example, a power failure, your risks with greenhouses could be fatal, whereas with extensive farming the risks are less. He said with intensified farming more focussed skills are required, assurance of water supply is more important and the financial layout required poses further risks. He said the risks should be investigated as part of investigating the feasibility of such a greenhouse development.</p>	
<p>(g) Mr Lance Fenn (Limpopo Economic Development Agency) said that new projects, such as the one proposed, should also include technology such as rainwater harvesting.</p>	
<p>7.2 SOCIO ECONOMIC PERSPECTIVE ON FUTURE WATER REQUIREMENTS</p>	
<p>Mr Glen Steyn (for AECOM) presented a socio economic perspective on the future economic requirements (see Appendix B) in order to estimate future residential water requirements for the development of the Reconciliation Strategy.</p>	
<p><i>Discussion</i></p>	
<p>(a) Mr James Hayes (Vhembe Forum) asked what is the history of reducing water losses, thus how successful are we as a country with WC/WDM? <i>Mr Steyn responded that in certain areas WC/WDM is very successful, however, special interventions are required.</i></p>	
<p>8 SCREENING OF POSSIBLE INTERVENTION OPTIONS</p>	
<p>Mr Gerald de Jager (AECOM) presented the possible intervention options that were identified to reconcile the current and future water requirements with the available water resources in the Study Area. He referred SSC members to the information document that was distributed to all participants before the second SSC meeting. He asked that members provide their comments during and after the meeting. Please refer to Appendix B for a copy of his presentation and a copy of the documents which were distributed.</p>	
<p><i>Discussion</i></p>	
<p>(a) Mr Cobus Bronn (Coal of Africa) asked that issues associated with water supply infrastructure be added to the interventions list.</p>	<p>Study Team</p>

(b)	Ms Nosipho Sombane (DWS) asked if the project team works on 2010 water requirements? <i>Mr Gerald de Jager (AECOM) responded that actual 2010 requirements are used as a base and that available updated information is added to that. Mr Glen Steyn uses current information, verify that and validate the findings over the study period to ensure that when the Reconciliation Strategy is finalised, the information is the best (up-to-date) available. Mr Johan Rossouw (AECOM) further explained that actual verified figures are used from which future forecasting is done. As the study progresses the actual figures are updated and future forecasts are done. He said this model has proven to work very well on other similar studies where it has been tested over a number of years.</i>	
COMMENTS ON THE MATLABAS INTERVENTION OPTIONS		
(c)	Mr Ian Midgley (Eskom) commented that the water requirement of 31 million m ³ p/a allowed for Temo coal mine, Thabametsi coal mine and the Waterberg JV are too high.	Study Team
(d)	Ms Louise van den Berg-Nicolai (Ledjadja Coal) said that Boikarabelo Coal Mine will also have to receive water from the MCWAP intervention and not just from the Marapong-Boikarabelo Effluent Transfer (MBET) intervention.	Study team
(e)	Mr Glen Steyn (AECOM) said that in the planning there was no inclusion of additional settlements and the associated water use. <i>Ms Louise van den Berg-Nicolai (Ledjadja Coal) said that she is aware of a new request that was lodged for approval of a housing project at Steenbokpan. She said that she will direct the project team to the relevant information.</i>	Louise van den Berg-Nicolai
COMMENTS ON THE MOKOLO INTERVENTION OPTIONS		
(f)	Although there is uncertainty in terms of the proposed Anglo Dallies Hope development and possible future Sasol developments in the area, the project team should make some provision for such future water use.	Study Team
(g)	Mr Rufus Nengovhela (DWS) will forward information to the project team on a proposed mining development. He attended a public meeting in Lephalale the previous week.	Rufus Nengovhela
(h)	Mr Baldwin Khosa (Coal of Africa) suggested that the project team obtain a list from the Department of Mineral Resources (DMR) on all the mining application in the study area.	Study Team
(i)	Mr Andre Venter (Letaba Water User Association) asked if the irrigation figures presented are for lawful use. <i>Mr Gerald de Jager (AECOM) said that the figures include all existing irrigation but that the elimination of unlawful use could free up an estimated 2 million m³/a. He added, however, that the verification process is currently underway and that this figure may still change.</i>	

(j)	Mr James Hayes (Vhembe Forum) said that many irrigation farmers are now game farmers, however, it may change again and that the study should keep in mind that agriculture may use their full allocation in future and that should be reflected in the study.	Study Team
(k)	Mr Cobus Bronn (Coal of Africa) suggested that the Project Team obtain a list of proposed Independent Power Producers (IPP) from the Department of Energy. With the list in hand it is easy to calculate the proposed water usage in terms of the proposed capacities of the IPPs.	Study Team
(l)	Mr Zanele Maphumulo (DWS) asked if the proposed Thabametsi IPP will comply to the regulations of being designed to be a dry cooling facility, using less water. If not, she recommends that the SCC recommends that they implement dry ash technology.	DWS (for SSC)
(m)	Upon a question whether Eskom is proposing further power stations in the study area, <i>Mr Ian Midgley (Eskom) responded that Eskom would not construct any further power stations not requested by the Department of Energy.</i>	
(n)	Mr Ian Midgley (Eskom) said that the 100 million m ³ /a volume allowed for Phase 2A of the MCWAP is too high. He said he can confirm that it will only be 75 million m ³ /a.	Study Team
(o)	The estimated savings from WC/WDM, quoted in the presentation as 10 to 20% for domestic users, differ from the estimates presented earlier by Mr Glen Steyn and these should be reconciled by the Study Team.	Study Team
(p)	Ms Zanele Maphumulo (DWS) said mines and industry should also be included in WC/WDM as these sectors should also contribute towards WC/WDM, especially since many new operations can use the latest technology, which is more water efficient. It was suggested that this should be a recommendation of the Strategy that all new operations (irrigation, industry, mines) should use water efficient technology.	Study Team
(q)	Mr James Hayes (Vhembe Forum) said that the Strategy should provide for the loss of water due to pollution.	Study Team
(r)	Mr James Hayes (Vhembe Forum) asked if the Study Team allows for incidences, such as the loss of a dam due to damage to infrastructure due to flooding. <i>Mr Gerald de Jager (AECOM) said no, however, the loss of storage due to sedimentation in dams is calculated and taken into account.</i>	
COMMENTS ON THE MOGALAKWENA RIVER INTERVENTION OPTIONS		
(s)	Mr Antonie van Staden (Vhembe Forum) suggested that the Strategy should recommend that pipelines instead of canals should rather be constructed for transporting of irrigation water.	Study Team

COMMENTS ON THE SAND RIVER INTERVENTION OPTIONS	
(t)	Mr James Hayes (Vhembe Forum) said that stakeholders in Louis Trichardt experience deterioration in water volumes. <i>Mr Tendani Nditwani (DWS) said that a pipeline from Nandoni Dam to Louis Trichardt is under construction and should improve the situation.</i>
(u)	Mr Pieter de Witt (Limpopo Department of Agriculture and Rural Development said that additional water is required for Polokwane and noted that feasibility studies are underway to double their volumes. <i>An official of the DWS said the Polokwane situation is very controversial at this stage and mentioned that Polokwane should start re-using its effluent and not transferring it. Polokwane's groundwater resources should be managed and further developed. Mr Trevor Mulaudzi (University of Limpopo) said that Polokwane should investigate the re-use of their treated effluent.</i>
COMMENTS ON THE NZHELELE INTERVENTION OPTIONS	
(v)	Mr Tendani Nditwani (DWS) suggested that the proposed new dam (just West of Makhado town) as well as another associated transfer should be included. He also said that DWS is doing a reconnaissance study to look at resources in Zimbabwe.
(w)	Mr Antonie van Staden (Vhembe Forum) requested the study team to include the proposed groundwater development at Chuenespoort as well as the wastewater treatment plant upstream of Nandoni Dam.
(x)	The transfer from Olifantspoort Weir to Polokwane (60 Ml/d) should also be included.
(y)	Mr Tendani Nditwani (DWS) requested that the water balance graphs, as presented, be updated to include re-use.
(z)	Mr Andre Venter (Letaba Water User Association) asked that in future the options should indicate for mining, industry, irrigation and domestic. He requested that assurance of supply for all sectors also be shown.
(aa)	Ms Lidile Mashilwane (Limpopo Office of the Premier) said that there are certain hot spots in terms of water supply in Limpopo Province, e.g. Polokwane, Mopani DM, Mogalakwena LM and that the Reconciliation Strategy should take cognisance of Provincial planning. <i>Mr Tendani Nditwani (DWS) responded that projects are underway for Tubatse, Musina and Polokwane.</i>
(bb)	Mr Rufus Nengovhela (DWS) said that a factory is planned near Makhado town and that they will also require water. He will provide the Project Team with more information.

(cc)	Mr Cobus Bronn (Coal of Africa) said that their mine is looking at the de-sedimentation of of Nzhelele Dam and that the mine will share the proposed possible interventions with the Study Team. He asked whether the DWS or Study Team is aware of a study that investigates the integrity of the dam as it is understood that the dam suffered some damages in previous floods.	Cobus Bronn
(dd)	Vondo Dam may have some spare capacity, which could be used to supply the Vhembe area – this will be investigated.	Study Team
9 SSC TERMS OF REFERENCE (TOR) FEEDBACK AND MEMBERSHIP		
	Mr Tendani Nditwani (DWS) reminded members that the TOR and membership list were distributed for all to comment on. He invited members to provide comment.	SSC Members
10 GENERAL		
	Ms Zanele Maphumulo (DWS) asked that a recommendation of this Strategy should be that new mines have to investigate the possibility of employing “dry” beneficiation.	Study Team
	Mr Ian Midgley (Eskom) asked that the Strategy should recommend ensuring of good water quality. He said that the study area will possibly have many new developments and that water quality should be protected at all costs.	Study Team
	Mr Trevor Mulaudzi (University of Limpopo) said that technologies to dispose of human waste using less water should also be recommended.	Study Team
11 DATE FOR NEXT MEETING		
	Members of the SSC proposed that the third meeting of the SSC be held in February 2016 in Musina. A proposed date and specific venue will be communicated to all members.	Study Team
12 CLOSURE		
	Mr Tendani Nditwani (DWS) thanked all participants for their attendance. The meeting was closed at 13:10.	

APPENDIX A