



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Support to the Implementation and Maintenance of the Reconciliation Strategy of the Crocodile West Water Supply System

Minutes of the Study Management Team (SMT) Meeting, No. 10 at 08:00 on 13 December 2011, BKS Pretoria

1. WELCOME AND CONSTITUTION OF THE MEETING

The acting Chairperson, Mr. Witek Jezewski, opened the meeting.

2. ATTENDANCE AND APOLOGIES

2.1 ATTENDANCE

An attendance register was circulated, as noted below:

Tendani Nditwani	(TN)	DWA: NWRP
Witek Jezewski	(WJ)	DWA: NWRP
Ockie van den Berg	(OvdB)	DWA: OA
Lebo Mosoa	(LM)	DWA: WRPS WQ
Dennis Behrmann	(DB)	DWA: WS : P&I
Johan Rossouw	(JDR)	BKS
Jonathan Schroder	(JHS)	BKS
Pieter van Rooyen	(PvR)	WRP
<i>Trevor Coleman</i>	<i>(TC)</i>	<i>Golder</i>

2.2 APOLOGIES

Rens Botha	(RB)	DWA: North West Region
Hannes Pretorius	(HP)	DWA: Infrastructure Branch
Lerato Bapela	(LB)	DWA: WRPS
Allestair Wensley	(AW)	DWA: Water Services
Hermien Pieterse	(HSP)	BKS

2.3 ABSENT

Bernie Badenhorst	(BB)	DWA: Limpopo Region
Barbara Weston	(BW)	DWA: RDM
Alloisius Salagae	(AS)	DWA: WRPS – E&ES
Koena Moabelo	(KM)	DWA: WUE
Steven Shibambu	(SS)	DWA: Limpopo

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Martha Komape	(MK)	DWA: Limpopo Region
Thokozani Ntuli	(ThN)	DWA: Water Ecosystems - groundwater
Smangele Mgquba	(SM)	DWA: Climate Change

* *Non-permanent members are indicated in **italic & bold**.*

3. APPROVAL OF THE AGENDA

The Agenda was approved, with the following additions:

- Item 7.2: MCWAP Project

4. MINUTES OF PREVIOUS MEETING

4.1 APPROVAL

- (a) The minutes of the previous meeting was approved.

4.2 MATTERS ARISING (NOT DISCUSSED IN THE ITEMS BELOW)

- (a) No discussion.

5. RECURRING TASKS

5.1 TASK 2: PROJECT MANAGEMENT – WORK PROGRAMME

5.1.1 Matters arising from previous meeting

- (a) ***Item 5.1.1: TN request the WRPM scenarios to be distributed to himself, Johan van Rooyen and OvdB for comments.*** Done – the scenarios were presented at the SSC.

5.1.2 Progress

- (a) At the earlier Project Management Meeting (PMM) TC reported that the calibration of the WQT (salinity) model for the Apies-Pienaars sub-catchment pointed out some problems with the hydrology at Klipvoor Dam. It is estimated that an additional amount of about R150 000 to R200 000 will be required to finalise this task.
- (b) WJ highlighted the importance of another SSC Meeting and the need to identify funding from another study task for this purpose. The Study Team will investigate the budget implications of addressing the hydrology issue as well as having another SSC meeting by possibly utilising the remaining budget of the Liaison Task (Task 3). JDR will assess, discuss with PvR and will report back to DWA.
- (c) JDR will also forward the updated cash flow projection for the remaining duration of the project to DWA.

JDR

JDR

5.2 TASK 3: LIAISON AND INFORMATION DISSEMINATION

5.2.1 Matters arising from previous meeting

- (a) *Item 5.2c: TN requested input for the upcoming Limpopo Water Summit.* Done – support was provided in the form of presentation material and inputs to relevant documentation.

5.2.2 Progress

- (a) Feedback was given to the outcome of a Technical Workshop held on 12 December 2011. representatives from DWA, Rand Water, Magalies Water, Tshwane Metro, Erwat and the Study Team attended this workshop. The purpose of the meeting was to discuss formulations and prioritisation of water allocations in the study area. One specific aspect of concern was the future water requirement projections in the Apies-Pienaars sub-catchment around Roodeplaat Dam and the split of the water supply between Rand Water, Tshwane Metro and Magalies Water.
- (b) Prioritisation of future water supply will depend on the future projected water supply to the Lephalale Area as part of the Mokolo-Crocodile Water Augmentation Project (MCWAP). Please refer to Section 7.2 of the minutes for further details.

5.3 TASK 4: STAKEHOLDER ENGAGEMENT AND ADMINISTRATION

5.3.1 Matters arising from previous meeting

- (a) *Item 5.3.1b: Proposed to hold next SSC at one of the mines in project area.* Done – the SSC Meeting was held at Mooinooi.
- (b) *Item 5.3.2a: Send a meeting reminder to all SSC members.* Done.
- (c) *Item 5.3.2b: Liaise with LM to present the Water Quality Situation Assessment and Petrus Venter to present the status of the Hartbeespoort Clean-up at the SSC.* Done – Petrus made a presentation at the SSC Meeting.

5.3.2 Progress

- (a) A successful 3rd SSC Meeting was held on 29 September 2011. A major disappointment was the poor attendance by representatives from the invited Municipalities. The date of the final SSC Meeting for this project depends on the feedback of the DWA questionnaire distributed by DWA on the MCWAP (see Item 7.2). A provisional date for the SSC meeting is 3 May 2012. Anelle Lötter should be requested to inform the members of the SSC Meeting on the provisional date.
- (b) Although no budget has been earmarked for another SSC Meeting, the study team will investigate the possibility of transferring some of the budget allocated to the Liaison Task to this task.

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6. TECHNICAL TASKS

6.1 TASK 5: WATER QUALITY MODEL

6.1.1 Matters arising

- (a) *Item 6.1.2b: LM to liaise with TC on the “assessment of the status of the water quality”.* Done.
- (b) *Item 6.1.2c: LM to draft ToR for an Integrated Water Quality Management Plan.* LM indicated that due to the integration requirements with the regions a Terms of Reference will be developed as a separate process – this item to be removed from the agenda of the next SMT Meeting.
- (c) *Item 6.1.2d: Obtain report from Martha Komape regarding the difference in water quality sampling between RSA and Botswana.* Still awaiting the report. Will be followed up again by JDR and reported back to DWA.

JDR

JDR

6.1.2 Progress

- (a) TC reported the water quality (salinity) calibration for the whole catchment has been completed except for three Demand Centres and the issue relating to the hydrology of Klipvoor Dam. The calibration of the Apies-Pienaars sub-catchment pointed out some problems with the hydrology at Klipvoor Dam. The Study Team, who also did the calibration of the hydrology for the same catchment as part of a previous study, experienced similar problems during the calibration of the hydrology for the same area. Additional effort will be required to identify and solve this issue, resulting in budget implications. The Study team requested approval from DWA for transferring some budget, originally allocated to the Liaison Task, to the Water quality calibration task. It is estimated that about R150 000 to R200 000 will be required for this.
- (b) TC also reported that the draft report for this task is about 70% completed. A complete draft should be available at the end of January 2012.

JDR

TC

6.2 TASK 6: WATER RESOURCES PLANNING MODEL

6.2.1 Matters arising

- (a) *Item 6.2.1a: The 2005 scenario for the irrigation supply downstream of Makoppa will be presented at the SSC.* Done and the detail nature of the work was well received by the representatives from the agricultural sector.

6.2.2 Progress

- (a) The output from the WQT Model is being incorporated into and tested in the WRPM.
- (b) Some final information and testing of selected demand centres is being incorporated into the WRPM.

- (c) PvR reported that it was resolved at the Technical Workshop (on 12 December 2011) that revised projections of the water requirements will be obtained from Tshwane for the Wallmansthal WWTW (previous projection data was provided by Magalies Water). The study team will follow this up with the appropriate officials of Tshwane (see *Item 8.1 for further details on the outcome of the Technical Workshop*).

JHS

6.3 TASK 7: DEVELOPING OF OPERATING RULES

6.3.1 Matters arising

- (a) *Item 6.3.2(a): Obtain report on river losses in the system that was done by G Basson as part of MCWAP.* Outstanding, JDR to follow up with Aurecon and report back to DWA.

6.3.2 Progress

JDR

- (a) This activity is running in parallel with Task 6 above. Integration with the Annual Operating Analysis study is taking place and coherent definitions of scenarios will be a priority.

6.4 TASK 9: RECONCILIATION STRATEGY REPORT UPDATE

6.4.1 Matters arising

- (a) *Item 6.4.1(a): Request for volumes associated with licence applications.* No feedback was received from Barbara Weston. JDR will follow up with Rens Botha.

JDR

- (b) *Item 6.4.1(b): Summarized groundwater information from All Towns Study per catchment and compare with current assumptions.* This will receive priority attention and be reported on in due course.

HSP

- (c) *Item 6.4.1(d): PD Naidoo feasibility study report to DB.* Done.

JDR

- (d) *Item 6.4.1(e): Assessing the Tshwane plans for future water requirements and re-use of water.* A meeting was held prior to the SSC Meeting where Mr P van der Walt from Tshwane Metro acknowledged and agreed that the water requirement scenario developed by the study team is acceptable for the development of the strategy. He confirmed the details of the proposed Tshwane Potable Water Augmentation Project consisting of several water purification plants affecting indirect reuse. This was presented as a scenario at the third SSC Meeting held on 29 September 2011.

- (e) *Item 6.4.2(a): JDR to obtain latest mining water requirements from JWF (Bigen Africa).* JDR reported that updated figures were requested from the Rustenburg Joint Water Forum. These figures will, however, not be available in time for use in this study.

- (f) *Item 6.4.2(b): DB to provide the JWF's 2009 scenarios report.* Done.

- (g) *Item 6.4.2(c): Discuss the Tshwane Metro scenarios before the SSC.* Done, included in WRPM as a scenario and reported back at the 3rd SSC Meeting.

JDR

6.4.2 Progress

- (a) The study team will finalise a proposed table of contents for the Reconciliation Strategy Report (Version 2) and send it to DWA for approval.

6.5 TASK 10: SUPPORT GROUP (SG) SUPPORT

No activities, no discussion.

7. COORDINATION WITH OTHER STUDIES

7.1 WCDM

7.1.1 Matters arising

- (a) *Item 7.1.1(b): Invite municipalities in Crocodile River catchment to present their status and progress on WC/WDM at next SSC meeting.* Done, however there was poor representation by municipalities at the 3rd SSC Meeting.

7.2 MCWAP PROJECT

7.2.1 Progress

- (a) OvdB gave a summary of progress of the MCWAP. Currently only Phase 1 (upgrade of supply from Mokolo Dam to Lephale) is going ahead. There are not enough committed users to go ahead with a reasonable size project for the next phase (Phase 2 – water transfer from the Crocodile River to Lephale). Phase 1 does not have sufficient water to supply Matimba Power Station, Medupi Power Station, Grootegeluk Mine (to supply coal to the two power stations) and Lephale town. Supplementation of water will be required particularly when considering that the use is for strategically important energy projects. The security of water supply will be at risk and further development will then be sterilised.
- (b) The recently completed Reserve determination study indicated that the ecological state of the Mokolo River (downstream of the dam) is on a downward trend and may require increased flows from what was signed off as the Preliminary Reserve. Over the next five years the Reserve may have to be increased, which will place more stress on the already stressed Mokolo River. Other coal mines in the Lephale area plan to export coal to other existing power stations.
- (c) The provisional figures of future water transfer from the Crocodile West River to the Lephale area currently ranges between a low figure of 10 million m³/a and a high figure of 110 million m³/a. DWA has circulated a questionnaire to stakeholders in the MCWAP area to supply figures of future water requirements associated with new developments. Mines in the area might also require a minimum quantity of water not to lose their mining rights. The purpose of the questionnaire is to narrow the band of the current available water requirements. It is expected that a consolidated spreadsheet should be available by the middle of February 2012 with more refined figures by the end of February 2012. These updated projected water requirements will then be made available to the study team for their further use.

- (d) It was agreed that it is essential to incorporate the above described water requirement scenario into the water balance before the Reconciliation Strategy can be updated. Due to the indicated timeline, the next SSC Meeting, originally scheduled for February 2011, will have to be postponed until May 2012.

8. GENERAL

8.1 TECHNICAL WORKSHOP

HSP

- (a) The high water requirement projection of Magalies Water at Wallmansthall was discussed in view of the water balance results indicating the Apies-Pienaars sub-catchment cannot sustain this scenario as well as the proposed Tshwane Potable Water Augmentation Project.

- (b) The Nokeng Tsa Tsaemane area has recently been incorporated into the Tshwane Municipal area. Lourens Lötter (from the Tshwane Metro) will make the bulk water master plan for that area available to the study team. The study team will then assess the projection and update the water requirement scenario for the Wallmansthall supply area accordingly.

JHS

- (c) Representatives from ERWAT who attended the technical workshop informed the representatives at the workshop about the construction of a new wastewater treatment works (WWTW) of 50 Ml/d capacity upstream of Rietvlei Dam. They will confirm whether the new WWTW will only take up the growth originally earmarked for the Hartbeesfontein WWTW.

JDR

- (d) An outcome from the meeting was an agreed approach for the prioritisation of water allocation regarding Lephale transfers, the proposed Tshwane Potable Water Augmentation Project and supply from Rand Water for the purpose of formulating scenarios for the strategy. This entailed giving first priority for use of the surplus water to supply the transfer requirements for Lephale. The Tshwane Potable Water Augmentation plants will then be scheduled (phased in over time) for implementation according to the remaining surplus. Thereafter the remaining water needs of Tshwane will be supplied by Rand Water. The options of making additional raw water available by transferring treated effluent from the Vaal River to the Crocodile West River system will be the ultimate supply scheme if necessary.

- (e) Monitoring the water balance in the Crocodile River system on a continuous basis was identified as an essential activity to ensure a positive water balance is maintained in future. To be able to do that both the water requirements (supply) and return flows need to be measured and recorded.

9. NEXT MEETING

- (a) The next SMT Meeting is scheduled for 7th March 2012 at 08:00 at BKS. This will be preceded by the PMM at 07:30.

- (b) The next SSC Meeting, originally scheduled for 28 February 2012, needs to be rescheduled awaiting the updated MCWAP water requirements (see Section 7.2 above). A provisional date for that SSC Meeting is 3 May 2012.

All

10. CLOSURE

The meeting was closed at 09:30

Minutes certified as correct and final

PSP Study Leader

Date

DWA Project Leader

Date