

**SUPPORT TO THE CONTINUATION OF THE WATER RECONCILIATION STRATEGY
FOR THE WESTERN CAPE WATER SUPPLY SYSTEM**

ADMINISTRATIVE AND TECHNICAL SUPPORT GROUP MEETING #2

DATE: 05 SEPTEMBER 2013 TIME: 08H30 – 12H30
 VENUE: WORLEYPARSONS, BELLVILLE – BOARDROOM
 CHAIR: ISA THOMPSON, DWA D:NWRP

ATTENDEES:

NAME		AFFILIATION	
Isa Thompson	IT	DWA D:NWRP	Study Manager
Fanus Fourie	FF	DWA D:WRPS	Groundwater
Jenny Pashkin	JP	DWA D:WRPS	Systems Operation
Pieter Viljoen	PV	DWA D: WRPS	Water Quality
Simpiwe Mashicila	SM	DWA RO Bellville	Water Sector Support
Anneke Schreuder	AS	DWA RO Bellville	Berg WMA
Derril Daniels	DD	DWA RO Bellville	Berg WMA
Wilna Kloppers	WK	DWA RO Bellville	Resource Protection
Mike Smart	MS	DWA RO Bellville	Groundwater
Penina Sihlali	PS	DWA RO Bellville	RBIG
Jan van Staden	JvS	BOCMA	
Paul Rhode	PR	City of Cape Town	Bulk Water
Mogamat Shahied Solomon	MSS	City of Cape Town	WC/WDM
Rowena Hay	RH	Umvoto Africa	Study Director
Kornelius Riemann	KR	Umvoto Africa	Study Leader
Jaco Human	JH	Worley Parsons	Team Leader
Olivia Davis	OD	Umvoto Africa	Study Secretariat

APOLOGIES:

NAME		AFFILIATION	
Bertrand van Zyl	BvZ	DWA D:NWRI	
Zolile Basholo	ZB	City of Cape Town	WC/WDM
Collin Mubadiro	CM	City of Cape Town	WC/WDM
Bayanda Zenzile	BZ	DWA RO Bellville	

MINUTES

<u>ITEM</u>	<u>DETAIL</u>	<u>ACTION</u>	<u>TIME</u>
1	<p>Welcome and Introduction</p> <p>IT welcomed everybody to the second ATSG meeting. She mentioned that we will need to prepare the annual Status Report and a media release as soon as possible. It is normally required to have it completed within two weeks after a SSC meeting.</p>		
2	<p>Attendance and Apologies</p>		
2.1	<p>Attendance and Apologies</p> <p>The attendance at the meeting, as listed above, was noted in the attendance register. Apologies were noted (see above). IT said that a representative of D: WUE should attend these meetings and be included on the distribution list. Paul Herbst had previously nominated Ms Nosipho Sombane.</p>	PSP	
2.2	<p>Minutes of ATSG #1</p> <p>The minutes of the ATSG meeting #1 of 12 June 2013 were accepted without changes. IT signed the approved minutes. A scanned version of the signed minutes will be made available for the project website.</p>	PSP	
2.3	<p>Matters arising</p> <p>All matters arising from the minutes have been addressed or will be covered under the agenda items.</p>		
3	<p>Preliminary Status 2013</p>		
3.1	<p>Feedback from SSC Meeting</p> <p>KR provided feedback from the SSC meeting of 30 August 2013. The discussion at the SSC meeting was focused on the achievements in water requirement reduction due to the implementation of WC/WDM measures by the CCT and the different intervention options that are currently being studied. An important outcome of the meeting was the need to relook at lead times for the different interventions to the point when the first water would be available. Another important feedback was that the actual water consumption in the CCT was declining over the last two years, which shows good success in water conservation and water demand management (WC/WDM).</p> <p>IT said it is important to indicate in the Status Report that the CCT has done great work in reducing their water consumption. However, the WC/WDM component in the City needs further support to get enough budget allocated for ongoing implementation of their WC/WDM Strategy. They must keep on doing what they are doing and adding new things and expand their awareness and education campaign.</p>		
3.2	<p>Updated scenarios</p> <p>KR said that it is important for the update of the scenarios to agree on the base year for calculating the growth scenarios. The original reconciliation scenario was based on actual water use in 2004 with a 3% growth rate. The scenarios used in the last status report were based on the water use in 2007 (i.e. the date at which the Reconciliation Strategy was completed). He suggested using 2013 as the base year for the new scenario updates.</p>		

ITEM	DETAIL	ACTION	TIME
	<p>IT said that it is important to understand the reasons for these drops in water use experienced over the last two years. If it is just because of restrictions then it would not be right to start from 2013. She added that the actual use by agriculture needs to be used for the historical supply and the capped volume for the future projections, as the irrigation sector still has room to grow irrigation developments into the capped allocation.</p> <p>JvS asked whether the scenarios take into account municipal wastage in the system. It is confirmed that the scenarios include the water losses. JH also mentioned that the water usage per sector for the CCT up to 2012/2013 (Residential, Industrial, Commercial and other usage) is available. KR said the system input is decreasing and sales increasing; the two curves are getting closer together which means there is a reduction in losses. PR said that another big contributing factor was the pressure reducing projects of the last few years. Pressure management systems are in place so that savings have been made before water sold to the end user.</p> <p>PR asked whether the WDM savings are included in the scenarios. KR explained that the graph represents projections without savings. It takes the high-growth rate from the WDM strategy, moves projections to start in 2013, and then applies 50% of the savings. This is then used for planning processes.</p> <p>PR stated that it is needed to find out exactly why 3.38% was chosen as the high-growth rate in the development of the WDM Strategy. This seems to be unrealistic, as actual growth rates since 2006 are 1.5% - 2%. Hence, the reasons behind the high rate might be too conservative. IT suggested that the actual growth rate could be used as a reference scenario. KR stated that the current low-growth scenario is based on 2%. RH said that the water use has increased but efficiency has improved. There is a need to update the base case to take new circumstances into account, which should take at least 10 years into account to predict future scenarios. PR agreed to use a 3.38% rate as the high growth scenario for planning purposes, until better information is forthcoming from the CCT.</p> <p>It was further agreed to use only 50% of the predicted savings from the WDM strategy for the planning scenario, as it is becoming more difficult and thus more expensive to realize real savings, as all the low-hanging fruits have been picked.</p> <p>PR would like someone to investigate the drivers behind the CCT's water requirement curve. IT said that Palmer Development completed a study for the City during 2005/2006. The study was used as input into the original Reconciliation Strategy. She agreed that the CCT needs to pick up on the study, as it is of major importance to get the best possible information for our planning inputs. It is also a good time now for that kind of study to be updated because there are no drought conditions and restrictions and the 2011 Census figures are available. MS suggested that such a study should include whether people have implemented their own resources like boreholes, grey water systems, rainwater tanks etc and to what extent they are using them outside times of water restrictions. AS said that the CCT still has some restrictions in their by-laws; like watering at certain times only. These are not legal restrictions imposed by the DWA, but rather part of the WDM measures and will remain valid.</p>	<p>PSP</p> <p>PSP</p> <p>PSP</p> <p>PSP</p> <p>PR/PF</p>	

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	<p>AS queried whether all use from the dams and rivers is included in the actual water use and requirement predictions; especially the users downstream of Theewaterskloof, such as Overberg Water and other irrigators. JP responded that she cannot confirm but will follow up with Bertrand van Zyl on this. It was agreed that all users should be included in the requirement scenarios.</p> <p>JvS questioned the practicality of adding a scheme that does not provide a significant increase in yield. KR replied that smaller yielding schemes often provide for the required lead time for implementing bigger schemes. Unfortunately there are not any further conventional augmentation interventions available to the WCWSS that can add a really large yield.</p>	JP/BvZ	
<p>4</p> <p>4.1</p> <p>4.2</p> <p>4.3</p>	<p>Progress with current studies: CCT</p> <p>Water re-use feasibility study</p> <p>PR reported that the tender for the water re-use study was published and several tenders have been received, which are being evaluated at the moment. It is expected to appoint the PSP and start the work by November/ December this year. IT said that there is a need to update the lead time of such a scheme. PR said it would depend on the selected option, but it would be similar to the lead time for the desalination plant (excluding marine works). JH said the design and construction is about 6 years with EIA for desalination. KR reminded members that the lead times begin at the start of the study. Hence, from the start of the feasibility study it would be about 8 years, including linking up to current network. We need to know when the first water could be available to augment the system.</p> <p>Desalination feasibility study</p> <p>PR said that two options are being investigated. He expects the study to be completed by the end of the calendar year and hope to have results available then that can feed into the Reconciliation Strategy processes. It was agreed that the length of the whole project would take about 8 years, including feasibility study and linking up to the current network.</p> <p>TMG Aquifer feasibility study</p> <p>PR reported that the City still intends to go forward with the Pilot Phase of the study. RH queried whether a pilot phase is needed prior to going into full development. She also highlighted that the TMG Aquifer development does not require an EIA, just a license for water use. KR undertook to update the lead times for the different options.</p> <p>AS asked about the risk to the supply associated with using the tunnel. KR responded that the recommendation for the pilot phase area was partly based on cost considerations. There is also the possibility to transfer the water from the wellfield via the Palmiet River and the Steenbras Dam.</p> <p>MS added that new technology of drilling horizontally exists, which could avoid the tunnel situation entirely by accessing the TMG water on the western side of the mountains. FF added that there are already existing horizontal boreholes that could be utilized on the western side of the mountain.</p>	KR	

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4.4	<p>PR and RH will discuss further the best way forward for TMG aquifer development and report back at the next ATSG meeting.</p> <p>Others</p> <p>PR confirmed that other studies by the CCT (e.g. Cape Flats Aquifer, Lourens River) were put on hold. It was agreed that these schemes would thus not be considered for the scenario updates as options that could be implemented in the near future. IT cautioned that they cannot just be wiped off the slate, but need to be kept on the list of possible interventions.</p> <p>IT stated that it was agreed at the SSC meeting for the PSP to undertake a situation assessment for the Cape Flats Aquifer that takes into account land use planning issues, water quality, flooding issues, different possible uses of the aquifer and management options. Only information from existing studies and reports need to be assessed. The City will take a decision about a feasibility study based on the situation assessment. The Way Forward however needs to be acceptable to both the CCT and the DWA.</p> <p>MSS mentioned that the CCT is currently undertaking a study on the use of springs, current and potential, in the metropolitan area. He will make the initial report by GEOSS available to the PSP.</p>	<p>PR / RH</p> <p>MSS</p>	
5 5.1 5.2 5.3	<p>Progress with current studies: DWA</p> <p>Surface water schemes</p> <p>IT reported that a decision has been made to go ahead with the EIA for the Voëlvelei Augmentation Phase 1 scheme, which came out favourable in the feasibility study. This would bring an additional 23 million m³/a to the WC WSS (instead of the 35 million m³/a originally envisaged). It is anticipated to make the PSP appointment for the EIA in October 2013.</p> <p>Langebaan Road Aquifer Artificial Recharge scheme</p> <p>FF commented that the report back should have been given at the SSC meeting. This will be a second feasibility study to relook at different methods and different sites, because the first pilot study did not work out as anticipated. The project will be done on a bigger scale. The project did not start yet due to procurement issues. It will hopefully soon go out on tender. Appointment will probably happen around February next year and the project could then start in April next year. IT said that the delay impacts on the lead times. This must be highlighted in the Status Report. The duration of the study will be about 30 months.</p> <p>Berg River water quality</p> <p>WK reported that the Berg River Water Quality Task Team is up and running. An action plan is being finalized focusing on sources of wastewater, communications and monitoring. There are various other initiatives as part of water quality tasks, like mapping pollution areas and sources and setting up websites that people can update info onto.</p> <p>IT said she hears a lot about plans and monitoring but is it leading to actions that improve the status of quality in the river? DD said one positive example is that it is curbing pollution from informal areas. Communities are getting involved.</p>	<p>PSP</p>	

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	<p>IT explained that we are looking for measureable outcomes and positive messages. It was agreed that DD will do a presentation with WK at the SSC meeting on the 9th of April next year. DD and WK will write a short paragraph on the projects implemented under the programme, so that it can be included in the Minutes.</p> <p>IT asked JP whether the decision support system take water quality into account. JP answered that the system is operated based on quantity, not quality. However, the water quality status is reported on in the support tool. IT said it would be good if these were all linked, along with what mitigation measures are available without wasting water.</p> <p>DD said the five-year programme on water quality management will be available from the next financial year. He undertook to provide relevant contact details to the team for follow-up.</p> <p>DD further reported that similar task teams will need to be established for the Eerste River and Plackenberg River, which both have water quality issues. WK said that the Eerste River is problematic due to the challenges in the Local Municipality and needs to be absorbed into Berg River Water Quality Task Team responsibilities. The DWA is engaging with Stellenbosch Municipality on the pollution issue and the National Prosecution Authority is now pursuing a court case against the municipality. IT requested that these issues be included in the Status Report. There must be exposure of water quality issues to management as well as various stakeholders.</p>	<p>DD / WK</p> <p>DD</p> <p>PSP</p>	
5.4	<p>Annual operating analysis</p> <p>JP said the study is on track and near completion. The next modeling run will be done on 1 November 2013 and the probability of restrictions at this stage is very small. The Water Resource Planning Model still needs to be updated with the new WDM figures.</p> <p>JP also reported on the Real-time Decision Support System currently being developed, which study is also nearing completion.</p> <p>IT added that the idea is that anybody should eventually be able to link onto the DWA website and see what is happening at any point in the system. JP says that this system sits on Water Affairs' server but is not yet available to the public. IT expressed the concern that Pieter Retief is operating the system from PE. There are no local people recruited or trained, except Bertrand van Zyl, who undertakes the quality control of the monthly distribution of data and results.</p>	<p>DC</p>	
5.5	<p>Others</p> <p>KR mentioned that it was not possible yet to obtain an up-to-date list of current WRC projects. All members were asked to provide information on WRC projects of interest that they are aware of, so that a comprehensive list could be compiled and circulated.</p> <p>Projects mentioned at the meeting include:</p> <ul style="list-style-type: none"> • Groundwater Economics study by Prime Africa • Public perception on water re-use • Social impacts of reuse for potable standards 	<p>All / PSP</p>	

ITEM	DETAIL	ACTION	TIME
	<p>PR will report back on the latter two and will send information to the team.</p> <p>WRC Managers to be contacted in order to update the list of WRC projects, which needs to be added to the Minutes. KR to co-ordinate and will also ask Pieter Viljoen and Elias Nel for input.</p> <p>IT asked more information about the proposed WesCape development. Apparently, the CCT's committee on land use (SPELUM) voted against the WesCape and Phillipi developments; but water is not part of their mandate. Umvoto undertook to obtain the report to SPELUM and organize a presentation at the next ATSG meeting. A way needs to be found to raise the Reconciliation Strategy Steering Committee's concerns. PR asked whether DWA was asked to comment on this application. DD confirmed that DWA provided comments. IT was not asked for NWRP inputs. Somebody responsible for planning within the CCT needs to be invited to the next SSC meeting to come and explain the wider spatial development vision for the CCT.</p> <p>JP reported that the study on operational rules for stand-alone dams is continuing with a new PSP appointment. It was suggested that members of the ATSG become part of their steering committee.</p> <p>KR said that the towns surrounding the City of Cape Town Metropolitan area are also included in the All Towns Reconciliation Strategy Study, which is currently developing overview strategies for the West Coast DM supply area and Stellenbosch / Drakenstein supply area to ensure that the All Towns strategies and the WC WSS Strategy are aligned.</p> <p>JH reported that there are issues around the co-funding of the planned West Coast desalination plant, currently investigated with RBIG funding. The cost was originally estimated at R200 million and council had allocated R80 million as co-funding. However, the cost is now estimated at R500 million. IT added that DWA supported the completion of the feasibility study, but is not sure that desalination is required and the appropriate water augmentation option at this stage.</p> <p>JH said the reason for the cost increase is that the cost of the inlet/outlet structures was previously underestimated. The scheme is designed for an incremental increase of the treatment capacity in 3 phases of 8 ML/day each. The estimated URV is R10 – R15/m³. Another issue to consider is the seasonal salinity in the Berg River. An additional reservoir at the Withoogte WTW is needed for storage of fresh water when the salinity is too high. IT responded that there is also the option to increase the allocation from the Berg River system and rather treating the poorer quality water from the Lower Berg River, than desalinating seawater. This should still be much cheaper in both capital and O&M costs than for desalination of seawater.</p>	<p>PR / KR / PV / EN</p> <p>Umvoto</p> <p>JP</p> <p>PSP</p>	
<p>6</p> <p>6.1</p>	<p>Communication</p> <p>Status report</p> <p>The following schedule for preparing the Status Report 2013 and the media release was agreed upon:</p>		

<u>ITEM</u>	<u>DETAIL</u>	<u>ACTION</u>	<u>TIME</u>
6.2	<ul style="list-style-type: none"> • Draft report to be circulated to the support group for input by end of 1st week of October. • Input by the ATSG required within 3 working days. • Final draft report together with draft media release to be sent to the Strategy Steering Committee members for input by the end of the 2nd week of October. • Input by the SSC members required within 1 week. • Final report and media release will be sent to management and communication department of DWA as well as of CCT for approval and release. • The final version of both documents and the Minutes of all the meetings will be uploaded onto the DWA's website. <p>IT emphasized that input from all ATSG and SSC members is required to make the Status Report a useful document. It is used by many people as it will be available on the DWA website.</p> <p>ATSG and SSC members</p> <p>It was agreed that KR will update the terms of reference for the SSC and the ATSG and circulate for comment prior to the next meetings.</p> <p>The list of SSC members will be updated and put onto the website. It was agreed to add Joy Learner of DEA&DP, a representative each (CEO?) from the Overberg Water Board and the Winelands WUA to the list of SSC members. Catherine Bill of the DEA&DP will be invited to the ATSG meetings. DD will assist with contact names for the Boards.</p>	<p>KR</p> <p>DD/PSP</p>	
7	<p>Next meeting of ATSG and Closure</p> <p>The date for the next SSC meeting was confirmed as:</p> <ul style="list-style-type: none"> • 9 April 2014 <p>The next meeting of the ATSG was provisionally set for the 4th or 11th of February 2014. Exact date and venue will be confirmed.</p> <p>IT closed the meeting at 12:30 for a light finger lunch.</p>	<p>PSP</p>	

SIGNATURE ORIGINATOR

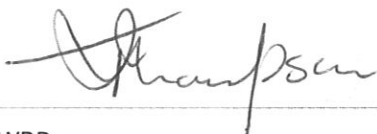


Umvoto Africa

4 Feb 2014

Date

SIGNATURE DEPARTMENT OF WATER AFFAIRS



D: NWRP

4 Feb 2014

Date

DISTRIBUTION LIST:

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ATTACHMENTS:

- Projects of BRIP
- List of current WRC projects