

APOLOGIES:

NAME		AFFILIATION	
Fanus Fourie	FF	DWS D:WRPS	Groundwater
Jenny Pashkin	JP	DWS D:WRPS	System Operation
Paul Rhode	PR	City of Cape Town	Bulk Water
Peter Flower	PF	City of Cape Town	D: Water and Sanitation
Zolile Basholo	ZB	City of Cape Town	WC/WDM Strategy
Colin Mubadiro	CM	City of Cape Town	WC/WDM
Catherine Bill	CB	D:EA&DP	Planning
Thembi Masilela	TM	DWS RO Bellville	D: Water Sector Support
Mike Smart	MS	DWS RO Bellville	Groundwater
Wilna Kloppers	WK	DWS RO Bellville	Resource Protection
Derril Daniels	DD	DWS RO Bellville	Berg-Olifants WMA
Neels du Buisson	NdB	DWS RO Bellville	Berg-Olifants WMA

MINUTES

ITEM	DETAIL	ACTION	TIME
1	<p>Welcome and Introduction</p> <p>IT welcomed everybody to the sixth ATSG meeting and acknowledged all who attend at this difficult time of year.</p>		
2	<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). The attendance register is attached (Appendix A).</p>		
3	<p>Minutes of ATSG #5</p>		
3.1	<p>The minutes of the ATSG meeting #5 of 4 September 2014 were accepted with the following change:</p> <p>Page 1 – time of meeting 8:30</p> <p>Page 3 – IT noted that "assess" was spelt incorrectly</p> <p>Page 7 – in section 5.4, all dates need 2014 added to them, also in 8.1.</p> <p>Page 8 – Jenny Pashkin's full name added.</p> <p>Page 9 – IT asked that the date of today's meeting be added subsequently.</p> <p>IT signed the approved minutes. A scanned version of the signed minutes will be made available for the project website.</p>	PSP	
3.2	<p>Matters arising</p> <p>All matters arising from the minutes have been addressed or will be covered under the agenda items.</p>	PSP	Dec '14

ITEM	DETAIL	ACTION	TIME
4	<p>Feedback from SSC Meeting</p> <p>KR stated that all matters will be discussed in this meeting under section 5. IT stated that the SSC meeting was positive and all parties are committed to working together.</p> <p>RH mentioned that the issue of infrastructure vandalism was discussed at the SSC meeting. IT added that it is included in the media release. BW suggested that the cost of vandalism be tracked, as it is costing the city millions and impacts on water supply at a local level and the environment through overflowing sewage systems. BW will provide KR with data and propose a way in which the costs can be tracked. IT stated that heavier sentences should be handed down to the people who are vandalising to deter further theft, as this could be considered sabotage.</p>		
5	<p>Issues from Status Report 2014</p> <p>KR presented on the issues arising from the Status Report 2014, most importantly the issue of agricultural allocations. KR described the need for this exercise to make sure that the water balance and water requirement scenarios are based on the same assumptions (i.e. "comparing apples with apples").</p> <p>The required date for the next intervention delivering water depends on which numbers are used; e.g. if the 'new' numbers presented in this presentation are used, then the next intervention could be needed sooner than in 3 years' time.</p> <p>There are links between the three parameters (system yield, allocations and water use) and therefore any assumptions made in one of the parameters would impact on the others.</p> <p>5.1 Water availability</p> <p>KR described that various reports use different numbers for the Total System Yield:</p> <ul style="list-style-type: none"> • Legacy Hydrology – 570 million m³/a • Berg WAAS – 596 million m³/a • WRPM – 582 million m³/a <p>The legacy hydrology is the only source that reports the yield of individual dams but these yields vary from the allocations used in the Berg River Water Project Agreement. The Berg WAAS is based on the entire system, excluding Atlantis and small dams on Table Mountain. The WRPM report done by Aurecon recently utilized water requirement scenarios which include 80% successful savings of WC/WDM measures and reduced agricultural supply reliabilities.</p> <p>KR questioned whether other sources, which are used by the users of the system to augment their supply, should be included in the yield analysis; e.g. the Atlantis Aquifer, Langebaan Road Aquifer, Berg River for Paarl and Wellington, and dams above Simon's Town and on Table Mountain. Anton Sparks noted that there is some allowance for the Berg River for Wellington (0.9 Mm³ abstractin and 8.9 Mm³ return flow). Since the Langebaan Road Aquifer has been down for most of the year, the consumption from the system has increased significantly. Hence, all sources should be included.</p>		

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5.2	<p>ASch agreed that all these sources should form part of the total yield, so that it can be accurately compared to the water use.</p> <p>IT also agreed and stated that no matter how small the volume of water is, it needs to be included in the model to know the actual balance of the system. KR noted that at the moment there is an assumption made for these extra sources but the actual volumes and yields are needed. BvZ stated that he can supply the dam levels of these sources but not the flow from them and that once Paarl is registered correctly with WARMS, the numbers can be brought into the water balance.</p> <p>GvZ and BW noted that whoever is operating a scheme will take the cheapest option available first. IT stated that all sources need to be included for the complete system model but it needs to be noted that some schemes are only used as an emergency supply and follows its own operating rules and is not included for the system's general supply.</p> <p>IT voiced her concern with Eskom not complying with operational rules for their pumping schemes such as the Palmiet, Gariiep and Drakensberg. The Palmiet scheme requires an hour of pumping water back into the dam for every 40 minutes of power that it generates, at the moment they are generating as much power as possible and then pumping the water back over the weekend when industrial water requirements drop, this needs to be monitored. BvZ stated that currently this is the best way to run the scheme and there is no threat to Cape Town's water supply. GvZ stated that this will only become a concern if there is a drought.</p> <p>IT added that another concern is the possible effect of climate change, because even if the volume of rainfall per annum remains constant for the Berg catchment, the type of rainfall could change to heavier, shorter episodes and where it falls can also change. This can result in flooding and possibly decrease in yield as most flood waters are lost from the system. BW and GvZ agreed and stated that a change in wind direction could also change rainfall patterns and runoff into tributaries, and impact on evaporation from dams.</p> <p>Water allocations</p> <p>KR questioned the water allocations figures that are currently used:</p> <ul style="list-style-type: none"> • Domestic – 410.5 million m³/a • Agriculture (capped) – 173.6 million m³/a • Total – 584.1 million m³/a <p>KR explained that the capped agricultural allocation should be 162.3 million m³/a, based on the Berg River Water Project Agreement between the CCT and DWS. The currently used capped allocation is 173.6 million m³/a. This apparently also includes 4 million m³/a for Overberg Water, which is industrial / stockwatering and domestic use, and not for agriculture.</p> <p>GvZ stated that Mike Killick and Tyl Willems were part of the committee that decided on the agricultural capped allocation of 173.6 million m³/a and should be contacted to explain it. The difference is most probably due to a difference in level of reliability; viz. the 162.3 million m³/a is available 98% of the time while the 173.6 million m³/a is only available 90% of the time.</p> <p>IT requested the PSP to set-up a task team comprising BvZ, GvZ,</p>	PSP	Jan '15

ITEM	DETAIL	ACTION	TIME
	<p>ASch, Anton Sparks, Tyl Willems and Mike Killick to clarify the agricultural allocations and other discrepancies. BW requested that Arne Singels from the CCT be included in the task team.</p> <p>RH will come up with the terms of reference and these can be reviewed by all including Mike Shand. IT requested that the task team report back on the figures at the next ATSG meeting. JH requested that the task team also come up with references of where each of the figures came from, so that in the future people can look at that and not have to track down the responsible people.</p> <p>IT stated that the temporary allocation of 28 million m³/a irrigation surplus to the CCT is no longer temporary and is now registered to the CCT. KR cautioned that if the capped agricultural volume is 173.6 million m³/a, then the 28 million m³/a that Cape Town is using is actually not available. In this case the contractual agreement between the City and the DWS must be altered.</p> <p>IT re-iterated that the agricultural allocation needs to be clarified before any further decisions can be made, such as the increased allocation West Coast DM has applied for, the CCT licensing of their increased allocation from the System and most importantly, when the next intervention will be needed. IT reminded all that the CCT license would not be from a specific dam but from the WCWSS as a whole.</p> <p>IT stated that the Voëlvlei Augmentation Scheme will most likely be the next intervention and it should be possible to implement it by the time it is needed, as the tender call for the EIA tender will go out in early 2015.</p> <p>BvZ brought up the concern of payment for water from the Berg River Dam because the CCT has been paying for it since 2002. He stated that if the West Coast is allocated part of the 81 million m³/a from the Berg River Dam (even only temporarily), then they must pay a negotiated tariff to the CCT.</p> <p>KR reported that the Lower Berg Irrigation Board has a quota of 7000 m³/hectare/annum, of which 3000 m³/hectare/annum comes from Voëlvlei Dam, therefore 4000 m³/hectare/annum must come down the Berg River and from the tributaries, especially the Klein Berg River and 24 Rivers. For the last number of years they have not been able to get their full quota, due to upstream developments in all the main rivers and tributaries. ASch stated that in terms of the Lower Berg IB's allocation, there is no guarantee that the quota will be provided via run-of-river, only the allocation from Voëlvlei is contractually agreed upon.</p> <p>IT requested that the PSP incorporates these aspects on water availability and water allocation in the WRYM to improve the previous results.</p>	<p>RH</p> <p>PSP</p>	<p>Jan '15</p> <p>Feb '15</p>
<p>5.3</p>	<p>Water consumption</p> <p>BW queried whether the agricultural consumption is growing every year and when it would reach the capped volume. KR stated that it remained constant over the last years, apart from drought years, when a significant increase can be observed. BW then asked if it is possible to control any restrictions posed on the agricultural sector, as they do for the CCT. IT responded that DWS plan to enforce monitoring of the agricultural usage; e.g. DWS use a telemetry system in the Fish River to record when a pump is used. Based on</p>		

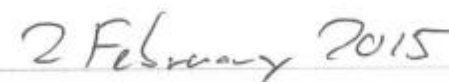
ITEM	DETAIL	ACTION	TIME
	the capacity of the pump, the volume abstracted can be calculated. GvZ stated that it is easy to sabotage the monitoring equipment and strict rules need to be made that if no readings are submitted from a farm, then no water will be released down the river for them. This will encourage the farmers to regulate each other.		
6	<p>Feedback from Technical Support</p> <p>DM presented on the geospatial analysis of water quality and contamination risks in the Berg River catchment. He listed the various sources of information that are used and current projects in the area (Berg River Water Quality Monitoring, Berg River Implementation Programme and Green Cape's Market Intelligence Report: Water) and asked for input as to any information sources or data bases available that have been overlooked. BvZ mentioned the following possible additional sources:</p> <ul style="list-style-type: none"> • the Berg River Water Quality Task Team which is testing water quality in the river, • the Freshwater Consulting Group has numerous EC meters in the Berg River, and • Drakenstein Municipality has 8 sampling points in the river. <p>DM then gave a short overview of the current status of the project and presented a long-section map of the Berg River along with tributaries and land-use maps. He reported that the water from the tributaries from the south, underlain by Malmesbury shale, are far higher in NaCl concentration compared to the water from the tributaries from the north, which are underlain by Table Mountain Group sandstones. The geospatial analysis illustrates the natural effects of the underlying geology on the water quality in the Berg River catchment.</p> <p>DM listed further data that is required, such as trace metals, organics and E.coli to assess the impact of agriculture and informal settlements on the water quality of the Berg River. IT asked if E.coli sampling was taking place. RH confirmed that it was taking place but that the data has not been collated yet. ASch and BvZ suggested liaising with Mellisa Lintnaar-Strauss from DWS.</p> <p>ASch stated that the land-use map looked out of date and that the Department of Agriculture has done new mapping but it is not available yet. DM undertook to follow-up with Andre Roux of the Department of Agriculture at Eisenburg.</p>	<p>PSP</p> <p>PSP</p> <p>DM</p>	<p>Dec' 14</p> <p>Dec' 14</p> <p>Dec' 14</p>
7 7.1	<p>Update of current studies:</p> <p>CCT studies</p> <p>BW presented on behalf of the CCT. He stated that whilst discussing water quality, the high turbidity in the Voëlvelei Dam is of concern. He asked about the impact of fish farming on the turbidity, as CCT has received permit applications. BvZ stated that a pilot study is underway in the Theewaterskloof Dam, where Stellenbosch University and Rhodes University have been given licenses to farm and catch fish. The concern remains that people see this as a sustainable food source and business. BW responded that he would like the alien fish causing the high turbid state of the Voëlvelei Dam</p>		

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	<p>specifically, to be totally eradicated as this would result in better water quality and hence cheaper water purification.</p> <ul style="list-style-type: none"> • <u>Desalination</u>: The study is close to completion. Although the scheme is planned to produce volumes of up to 450 Ml/d, this might be above the capacity of the reticulation system. • <u>Water Reclamation</u>: A workshop will be held with Aurecon by the end of 2014. Reports are expected by early to mid 2015. • <u>TMG Aquifer</u>: The appointment of the PSP was due in October 2014, but there have been delays in getting all signatures required. The study was due to be completed by June 2017 on the assumption of commencement by November 2014. • <u>Lourens River</u>: Tender documents are being prepared. • <u>Cape Flats Aquifer</u>: Umvoto is underway with meeting all the role players and will produce a report on possible pre-feasibility studies on the CFA by October 2015. IT stated that the Phillipi area is the most important, in terms of safeguarding irrigation and preventing further pollution of the aquifer. <p>IT stated that the CCT needs to take action because all of the studies are behind schedule.</p> <p>MSS stated that the CCT WDM have submitted an application for the water use licencing of spring water. NV responded that she has not seen the final GEOSS report on springs nor any application for licencing.</p> <p>MSS further stated that there are many applications for using groundwater in Atlantis following the economic incentive to do business in Atlantis. The CCT is in conversation with industry to reduce water requirements and are offering incentives such as the star system rating, to promote self-regulation, wrt usage and discharge, especially effluent. Car rental agencies have reduced their potable water requirements through rainwater harvesting and other means. He mentioned that industry is responding positively to reducing water requirements. The CCT is looking at water by-laws to manage private water re-use and green building water management. The CCT will not allow private entities to treat water for drinking purposes. IT commented that the private move to water re-use is a positive contribution to WC/WDM.</p> <p>IT noted the newspaper article about E.coli in fish in False Bay. ASch stated that a multi-departmental visit to False Bay was held and the pollution checked. She noted that fish are cold blooded and therefore E.coli will not survive within the fish. BW added that the CCT had released a media statement on this issue, which he will forward to IT and Umvoto.</p>	<p>PSP/CCT</p> <p>CCT</p> <p>BW</p>	<p>Oct '15</p> <p>Done</p>
7.2	<p>DWS studies</p> <ul style="list-style-type: none"> • <u>Voëlvelei pumping scheme</u>: IT reported that the EIA process will commence in early 2015 with the tender call going out. • <u>Langebaan Road Aquifer</u>: NV reported that there were delays with the required agreements between DWS and the CSIR. She added that she and Derril Daniels have started writing a motivation as to why the study should continue. 		

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	<ul style="list-style-type: none"> Annual Operational Analysis: IT stated that there is no PSP for the analysis. A meeting is to be held on 10 December 2014, but for the moment all dams are nearly full and there will most probably not be any restrictions recommended for 2014/15. WK in the regional office is preparing a motivation to study the effects that water releases from the Berg River Dam have on the river's ecology. 		
<p>8</p> <p>8.1</p> <p>8.2</p>	<p>Communication</p> <p>Status Report</p> <p>IT stated that the Status Report is finalised. ASch mentioned that she will send minor corrections to KR by Friday 28 November 2014. KR requested the agriculture figures from BvZ by Friday the 28 November 2014. BvZ stated that he has a meeting on Friday about the figures and will forward them to KR after the meeting. It was agreed that the report will be edited with these minor corrections and then submitted as final report.</p> <p>Media Release</p> <p>BW stated that he is finalising the media statement with regard to the 10% saving tariff and will have it done by the end of the week.</p>	<p>ASch</p> <p>BvZ</p> <p>KR</p> <p>BW</p>	<p>Done</p> <p>Nov '14</p> <p>Done</p> <p>Done</p>
<p>9</p>	<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"> 25 February 2015 <p>The next ATSG meeting was set for the 2nd February 2015 at 12:00. IT thanked all for their positive and active participation during the meeting and closed the meeting at 13:00.</p>	<p>PSP</p> <p>PSP</p>	

SIGNATURE ORIGINATOR


Umvoto Africa



Date

SIGNATURE DEPARTMENT OF WATER AND SANITATION


D: NWRP



Date

DISTRIBUTION LIST:

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Pieter Viljoen	PV	DWS D:WRPS	Water Quality
Jenny Pashkin	JP	DWS D:WRPS	Systems Operation
Nosipho Sombane	NS	DWS D:WUE	
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Simphiwe Mashicila	SM	DWS RO Bellville	Programme Manager RBIG
Penina Sihlali	PS	DWS RO Bellville	RBIG
Ashia Petersen	AP	DWS RO Bellville	
Anneke Schreuder	ASch	DWS RO Bellville	Berg WMA
Derril Daniels	DD	DWS RO Bellville	Berg WMA
Wilna Kloppers	WK	DWS RO Bellville	Resource Protection
Mike Smart	MS	DWS RO Bellville	Groundwater
Nicolette Vermaak	NV	DWS RO Bellville	Groundwater
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Catherine Bill	CB	DEA&DP	
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Barry Wood	BW	City of Cape Town	Bulk Water
Paul Rhode	PR	City of Cape Town	Bulk Water
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Gerrit van Zyl	GvZ	Consultant	
Kate Robey	KaR	Council of Geoscience	
Gideon Tredoux	GT	CSIR/Council of Geoscience	

ATTACHMENTS:

- Attendance Register
- Presentation by K Riemann
- Presentation by D McGibbon