

APOLOGIES:

NAME		AFFILIATION	
Peter Flower	PF	City of Cape Town	D: Water and Sanitation
Simpiwe Mashicila	SM	DWS RO Bellville	Programme Manager RBIG
Mike Smart	MS	DWS RO Bellville	Groundwater
Paul Rhode	PR	City of Cape Town	Bulk Water
Mike Killick	MK	Aurecon	

MINUTES:

ITEM	DETAIL	ACTION	TIME
1	<p>Welcome and Introduction</p> <p>IT thanked all for attending the meeting and asked for a round of introductions.</p>		
2	<p>Attendance and Apologies</p> <p>The attendance at the meeting was noted in the attendance register. Apologies were noted on the register. The attendance register is attached (see Appendix A).</p>		
3 3.1	<p>Minutes of ATSG #7, 2 February 2015</p> <p>Approval of minutes</p> <p>The minutes were approved with the following corrections:</p> <p>Page 3, Item 3.1: The 6th paragraph should read:</p> <p><i>ASp noted that there is some allowance in the model for extraction from the Berg River in Paarl/Wellington, 0.9 million m³/a abstraction, 8.9 million m³/a return flow from the WWTW. KR confirmed that this was discussed at the last ATSG meeting.</i></p> <p>Page 4, first sentence of last paragraph should read:</p> <p><i>WE stated that there is no charge for stock watering because it is considered Schedule 1 use.</i></p> <p>Page 5, second last paragraph: correct typing error</p> <p>Page 8, first sentence in 5th paragraph should read:</p> <p><i>IT requested that the Atlantis Wellfield and Cape Town dams need to be added to the model because they meet some of the requirements and are used as emergency supplies.</i></p> <p>IT signed the approved minutes. A scanned version of the signed corrected minutes will be made available for the project website.</p>		

ITEM	DETAIL	ACTION	TIME
3.2	Matters arising		
3.2a	Page 5: IT requested that a scenario be developed as a worst case addressing the assurance of supply for irrigation. KR stated that a worst case scenario is in the Status Report, but will develop another scenario for the next Status Report.	PSP	Sep 2015
3.2b	Page 8: ASi commented that a table needs to be made comparing the different assurance levels. KR confirmed that this table will be prepared for the Status Report.	PSP	Sep 2015
3.2c	Page 8: KR reported that he had individual and group discussions with all and had received sufficient information to conclude the investigation into agricultural and domestic allocations. He then suggested addressing it in the meeting so that all agree on the allocations.		
3.2d	Page 8: KR stated that he had requested the V&V results from the Breede-Gouritz CMA. WE stated that the Upper Breede and Lower Breede sections are complete and the only remaining section is from Brandvlei Dam to the confluence with the Riviersonderend River (Central Breede). He noted that B-G CMA will carry out a V&V project upstream of Le Grange Dam in Ladismith.		
3.2e	WE stated that on behalf of B-G CMA he was surprised by the amount of irrigation taking place on the tributaries of the Riviersonderend River and the Upper Breede River. He noted that it would impact on the proposed transfer scheme from the Upper Breede River. He added that the 2000 registration was about 20% higher than actual used, but the irrigation in 2010 was around the same figure although this may be unauthorized. This will affect the Michell's Pass diversion scheme. He also noted that the riparian areas of the river need clearing to increase low flow.		
3.2f	IT stated that more low flow is needed to improve water quality that has been degraded by irrigation. WE stated that a monitoring regulation is needed to force farmers to measure water use. IT stated that this should be discussed at the SSC meeting. WE noted that the Lower Berg River is the most important. He described that monitoring can be done with a meter, telemetry on the pump or aerial photography.		
4	Technical Support IT stated that a draft report has been compiled and distributed to all and will go to the Steering Committee once approved. It needs to be finalized today so that it can be distributed to the Steering Committee.		
4.1	Water Allocations		
4.1a	KR stated that there are still a few queries and he suggested discussing the numbers to reach an agreement today, so that the Allocation Report can be updated. IT thanked ASch for finding all the relevant documents. KR described how the allocation has been revised from previous 584.1 million m ³ /a listed in the Status Report to 604.7 million m ³ /a. He stated that there is an over allocation of approximately 20 million m ³ /a. IT agreed that all need to come to a consensus on the revised allocations.		

ITEM	DETAIL	ACTION	TIME
4.1b	KR noted that the model has a 98% assurance level across all sectors. WE stated the he expected that there is a bigger difference in volume between the various assurance levels. He added that no matter how small the difference is, it must still be calculated. KR explained that he calculated a difference of 5 to 6 million m ³ /a using the method that GvZ had used in previous calculations.		
4.1c	WE voiced his concern as to whether losses are included or not. KR explained that the losses along the rivers are included in each individual allocation and not just as one lump sum for the system. The difference between the permitted abstraction volumes and allocation from the system is the loss. WE stated that it would be required to establish the exact losses in the Lower Berg River as the values in the Allocation Report look too small. He requested that a table of allocations, losses and permitted abstraction be made. GvZ added that meters could be 5% inaccurate.	PSP	Apr 2015
4.1d	KR stated that most of the numbers used in the Status Report are from the Berg River Water Project agreement between the CCT and DWS. WE stated that he and ASch can provide more accurate numbers than the agreement. IT requested that these numbers are provided to the team urgently.	ASch, WE	Mar 2015
4.1e	JP stated that the domestic assurance level is 98% and that the agricultural assurance level is 91% but these are weighted averages. She added that it is unrealistic to give agriculture a 98% assurance level but the differences need to be accurately calculated so that there is flexibility in implementing restrictions. GvZ advised that it is important that this document is rigorously edited and debated until formal agreement can be reached by all stakeholders as it could well become a legal agreement at a later stage.		
	BW asked if the comments from MK and ASp can be seen. KR stated that it can be distributed to all.	PSP	Mar 2015
4.1f	<p><u>Domestic:</u></p> KR illustrated the domestic allocations and highlighted the following for discussion: <p>The City of Cape Town's (CCT's) 385.9 million m³/a includes the 81 million m³/a from the Berg River Dam and a temporary allocation of 28 million m³/a from the Theewaterskloof Dam. WE stated that the temporary allocation of 28 million m³/a does not exist anymore because 12 million m³/a has been allocated to agriculture by way of licences issued. KR asked what the term temporary means in this context, as the BWP agreement is not clear on that. WE stated that agriculture never took up their full allocation before and therefore it was temporarily given to the CCT but now that more licences have been awarded about 12 million m³/a is not available anymore. The other 16 million m³/a is already allocated to farmers but not fully taken up. That is why the assurance level is currently so high but once they start to use it then the assurance level must be lowered.</p>		
4.1g	ASch will send KR the agricultural user's licences, so that it can be included in the table. She stated that Piketberg & PPC are currently allocated more than 1.5 million m ³ /a. IT requested that WE, KR and ASch sort out the table and numbers.	ASch, WE, KR	Apr 2015

ITEM	DETAIL	ACTION	TIME
4.1h	The CCT noted that the DWS never followed the procedures that were put in place in the BWP agreement and that there is a difference in opinion regarding the allocation of the 28 million m ³ /a. The CCT will formally request a meeting with the DWS to rectify this and come to an agreement regarding the temporary allocation of 28 million m ³ /a and the 81 million m ³ /a from the Berg River Dam.		
4.1i	IT stated that the need for accurate numbers is critical because they need to know when the next intervention must be implemented and this costs money, so they do not want to prematurely implement it.		
4.1j	WE stated that the volume not used by agriculture should be calculated so that we know what is available for the CCT and then the CCT can apply for a temporary licence to use it and compensate the farmers for that. IT agreed that this needs to be done so that the CCT can apply using Section 25(1).	PSP	Apr 2015
4.1k	KR queried whether the domestic allocation of 2.1 million m ³ /a for the Drakenstein DM is winter or summer water. GvZ stated that it should be summer water. JH stated that this was finalised in the All Towns Reconciliation Strategy and Paarl is working up to that allocation and it will suffice for a few years.		
4.1l	KR asked if Piketberg & PPC's allocation is winter or summer water. GvZ stated that he thinks it is summer water. KR added that there is no river loss estimated for these allocations.		
4.1m	KR explained that the numbers in the report only include allocations from the system, not other sources such as Atlantis Wellfield and Cape Town's smaller dams.		
4.1n	<p><u>Agricultural:</u></p> KR then described the agricultural allocations and how he calculated the total agriculture allocation of 183.4 million m ³ /a. He noted that the main uncertainties come from the Lower Berg River. He asked if the additional licences are for abstraction from the river or include the river losses because if the additional licences do not include losses, then the licensed volume of 10.8 million m ³ /a relate to an allocation from the system of about 13.6 million m ³ /a. WE stated that the additional registered 2.8 million m ³ /a was temporary licencing and that has now been rectified, so it can be removed from the table. KR stated that if the 2.8 million m ³ /a is removed then the total volume remains the same because it makes up for the losses on the additional licences.		
4.1o	IT requested that KR update the table with allocation, losses and registered abstraction.	PSP	Apr 2015
4.1p	ASch questioned the summer water allocation to the Eerste River. GvZ stated that it is explained in the reports. KR stated that he will check this with BvZ. ASch stated that this should be included as domestic water if it is used by the University. WE disagreed and stated that it is separate water to that of the municipality.	KR, BvZ	
4.1q	ASch questioned the industrial allocation in Helderberg. WE stated that it is currently classified as agricultural water but is used for industrial purposes. He suggested that in the future it should be split. WE stated that he can give the details to KR.	WE, KR	

ITEM	DETAIL	ACTION	TIME
4.1r	<p>KR stated that there are, in addition to Banhoek IB, some other allocations from the tunnel. WE stated that these take water from the Dasbos outlet and should be incorporated into the Berg River Irrigation Board when they transform to a water user association. He added that the actual use needs to be verified, as lots of the agricultural water is actually used for landscaping and in the cellars, which is considered urban use. This will be addressed in the verification process.</p>		
4.1s	<p>WE queried why the Lower Berg River's allocation is separated into different quotas. He suggested that the winter allocation should be combined as an allocation of 7000 m³/ha/a. He added that the summer allocation of 3000 m³/ha/a from the system is not sufficient and that between 2000 m³/ha/a and 2500 m³/ha/a of the remaining 4000 m³/ha/a should also come from the system. The rest comes from other sources. It was agreed that for the purpose of the report and calculation of water requirements from the system, 3000 m³/ha/a as per original allocation and an additional 2000 m³/ha/a will be provided from the system and the remaining 2000 m³/ha/a will need to come from other sources.</p>	PSP	Apr 2015
4.1t	<p>WE added that the unknown section from Theewaterskloof Dam in Table 3.11 is in fact known and been verified. WE will provide KR with the figures.</p>	WE	Apr 2015
4.1u	<p>ASch asked that the term existing lawful users should not be used in the report, where it refers to the BWP agreement. WE agreed and said that it should be noted that the agreement differs to the law. He stated that the agreement was based on what fitted best at that time.</p>		
4.1v	<p>IT requested that all contact KR with any further queries and input on the Allocation Report as soon as possible so that it can be circulated to the Steering Committee Members for discussion at the SSC meeting.</p>	All	Mar 2015
4.1w	<p>BW queried whether the recommendation in the report, that no further licences should be granted by the DWS, includes the licence application by Cape Town. KR responded that this recommendation was meant for new licence application and not for the CCT, as the City has already applied for a licence in 2011.</p> <p>KR stated that the DWS needs to decide whether the entire 81 million m³/a from the Berg River Dam is licensed to the CCT or if a portion is licensed to the West Coast DM according to their licence application. WE explained that the BWP agreement states that other parties can apply for an allocation and then pay a pro rata amount back to the CCT, as the City has been paying the full rates since construction of the Berg River Dam started.</p>		
4.2	Cape Flats Aquifer		
4.2a	<p>RH stated that Umvoto have met with all the relevant CCT departments and are now beginning to type up the strategy for the utilization and management of the Cape Flats Aquifer.</p>		
4.2b	<p>RH mentioned that the final meeting with KS was of interest because it added another dimension to the use of the Cape Flats Aquifer. KS wants to use artificial recharge into the Cape Flats Aquifer as a disposal method of treated effluent. RH explained that the main challenge is that in order to recharge an aquifer with treated effluent there needs to be the same volume of abstraction</p>		


ITEM	DETAIL	ACTION	TIME
4.2c	<p>to provide space in the aquifer. The concern is that the Cape Flats flood every winter and therefore there is already a storage problem in the aquifer.</p> <p>RH suggested that Umvoto set up a mass balance model to determine where artificial recharge could work and how abstraction and recharge would work. She added that it would be more practical to complete the strategy document first and then work on the technical aspects of the artificial recharge separately. IT agreed with this and asked for a presentation on the Cape Flats Management Strategy for the SSC meeting.</p>	RH	Apr 2015
4.2d	<p>IT complemented the CCT on looking at alternate uses of the Cape Flats Aquifer.</p>		
4.3	<p>Berg River Water Quality</p> <p>DD stated that he is finalising the management system of the Berg River Partnership. The concern is that during stage 3 power failures the WWTWs on the river will face storage capacity challenges. A workshop will be held in April with the affected municipalities to come up with solutions. Currently all discharge points along the Berg River are being mapped and this has resulted in new discharge points being located. The report is being finalized. DD explained that during a fieldtrip to the Berg River a few concerning things were noted. IT stated that she would appreciate something in writing before the Steering Meeting so that it could be circulated to all to have an informed conversation at the next meeting.</p> <p>DD noted that the water quality has improved since the Franschoek WWTW closed but there are still some illegal connections there which the municipality is currently dealing with.</p> <p>RH mentioned the geospatial mapping that Umvoto is doing and asked IT for a formal letter siting that Umvoto is doing the study for the DWS. This will enable Umvoto to gather data from the relevant departments. RH asked DD to send Umvoto any data that he has. DD mentioned that the CSIR has some data.</p> <p>IT suggested that the letter comes from the Regional Office but Umvoto can draft it and send it to DD. The various departments that monitor the Berg River are the Health Department, Public Works, Municipalities, DWS, DEA&DP, CSIR, irrigation board's and the various wineries.</p> <p>CB stated they have ten monitoring points on the Berg River and the DEA&DP is willing to share the data but where the data is stored needs to be discussed. IT stated that she is worried that the same points are being monitored by multiple departments and then there are gaps elsewhere that are not being monitored. She requested that a monitoring protocol be drafted for the departments so that the entire river is monitored. RH stated that this could be prepared as part of the current technical support.</p> <p>DM mentioned the lack of organic and trace metal data available in the Berg River as that is critical in assessing the impact of pesticides and fertilizers.</p> <p>WK stated that the Berg Water Partnership is formulating a monitoring program regarding parameters to be monitored. DD suggested that all parties meet to see what each group is doing to avoid duplication of work.</p>	<p>DD</p> <p>DM, DD</p> <p>PSP</p> <p>DD</p>	<p>Apr 2015</p> <p>Apr 2015</p>

ITEM	DETAIL	ACTION	TIME
	<p>WK mentioned that the Department of Agriculture is doing a mapping project in the upper Berg River for establishing a Maintenance Management Plan.</p> <p>IT suggested that identifying where alien plant removal should be done, should be an important part of the Berg River Partnership, so that Working for Water can be pointed in the right direction. The clearing of alien plants will protect infrastructure from being damaged by trees during flooding. DD mentioned that Working for Water is going to be working in the Berg River for the next three years and they will know the specific sites soon.</p>		
<p>5</p> <p>5.1</p>	<p>Update of current studies: CCT</p> <p>CCT studies</p> <p><u>Desalination</u></p> <p>MH explained that the feasibility study report has been submitted and is currently being reviewed by the CCT internally. BW added that they presented the findings of the study to a CCT committee and the reactions were negative due to the high costs. Therefore going forward with this project will be complicated because there is a lot of political resistance. IT requested a presentation for the SSC meeting.</p> <p>RH asked if there was a disaster risk assessment done and how will it relate to electricity shortages. IT noted that the unreliable electricity is a problem but if water is needed then it has to be done.</p> <p>JH asked if the pilot study will still take place. BW stated that they want to go ahead with it but it is challenging.</p> <p><u>Water Reclamation</u></p> <p>MH noted that the report is due by mid-year.</p> <p><u>TMG Aquifer</u></p> <p>MH stated that the CCT considers a single service provider for the continuation of the project. IT asked when the consultant will be appointed. MH stated that he is unsure.</p> <p><u>Lourens River</u></p> <p>The project is planned to start in mid-year; next financial year.</p> <p><u>Cape Flats Aquifer</u></p> <p>Dealt with above.</p> <p><u>Atlantis Aquifer</u></p> <p>BW stated that 12 of the boreholes have been rehabilitated and they are currently supplying 6 Ml/day to Atlantis.</p> <p><u>Renewable Energy</u></p> <p>IT asked how the Waste Water section is dealing with the load shedding. KS stated that they are looking into renewable energy and hoping to be able to produce 50% of the plants' electricity by using sludge and gas. However, there is currently no backup power to supply the plants during load shedding.</p>	<p>CCT</p>	<p>Apr 2015</p>

ITEM	DETAIL	ACTION	TIME
5.2	<p>WK asked about decentralising and going self-sufficient in terms of water tanks etc. but KS stated, that would increase the number of staff and pumps needed. KS added that there are 27 WWTW in Cape Town and they are planning to further centralize the system. IT requested a verbal presentation at the SSC meeting.</p> <p><u>DWS studies</u></p> <p><u>All Towns Reconciliation Strategy Study</u></p> <p>IT stated that the Reconciliation Strategy Study is ongoing. She urged the PSP to ensure that both studies are aligned.</p> <p><u>Voëlvlei Dam Augmentation</u></p> <p>IT reported that the EIA process has still not commenced. This becomes urgent and the design for construction will have to run in parallel with the EIA because of the delays.</p> <p><u>Langebaan Aquifer</u></p> <p>NV reported that the aquifer is currently not in use as the WC DM are still waiting for electrical parts for the pumps. The aquifer is recharging well.</p> <p>NV stated that there are problems at the Hopefield Wellfield as the DWS is not receiving any information from the Saldanha Bay LM.</p> <p><u>Elandsfontein mining</u></p> <p>NV stated that the EIA and mining rights have been granted without consideration of the groundwater impacts. The contractors have commenced construction of roads and trenches.</p>	KS	Apr 2015
6	<p>Preparation for SSC Meeting</p> <p>IT requested that the following presentations or verbal feedback be added to the agenda for the SSC meeting on 22 April 2015:</p> <ul style="list-style-type: none"> • Presentation by KR on the agricultural and domestic allocations from the WCWSS; • Presentation by the CCT on the results of the desalination feasibility study • Presentation by RH on the Cape Flats Aquifer Management Strategy • Presentation by the DEA&DP on the Sustainable Water Management Plan • Presentation by the DEA&DP on challenges and successes of the Working for Water programme • Presentation by Derril Daniels or Melissa Lintnaar-Strauss on the Berg River Water Quality, listing the different departments involved in monitoring and any challenges experienced. • Feedback by the CCT on progress with their studies • Feedback by Jannie van Staden on the V&V results and progress • Feedback by Paul Herbst on the regulation to monitor water use by the agricultural sector 	KR CCT RH CB DEA&DP DD CCT J van Staden P Herbst	Apr 2015 Apr 2015 Apr 2015 Apr 2015 Apr 2015 Apr 2015 Apr 2015 Apr 2015 Apr 2015

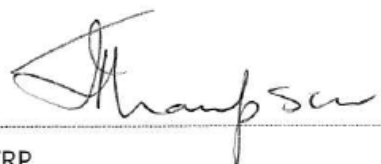
ITEM	DETAIL	ACTION	TIME
7	<p>General</p> <p>IT stated that no press release will be prepared at present. The next media release will be prepared when the next Status Report is finalised at the end of the year.</p>		
8	<p>Next meetings of ATSG and Closure</p> <p>The next SSC meeting is scheduled for 22 April 2015. The next ATSG meeting was scheduled for 14 May 2015.</p> <p>IT thanked all for attending the meeting, especially ASch and WE for the hard work they are putting into gathering the allocation volumes.</p>		

SIGNATURE ORIGINATOR


 Umvoto Africa

14 May 2015
 Date

SIGNATURE DEPARTMENT OF WATER AND SANITATION


 D: NWRP

14 May 2015
 Date

INVITED:

NAME		AFFILIATION	
Isa Thompson	IT	DWS D:NWP	Study Manager
Fanus Fourie	FF	DWS D:WRPS	Groundwater
Pieter Viljoen	PV	DWS D:WRPS	Water Quality
Jenny Pashkin	JP	DWS D:WRPS	Systems Operation
Nosipho Sombane	NS	DWS D:WUE	
Tembi Masilela	TM	DWS RO Bellville	Water Sector Support
Simphiwe Mashicila	SM	DWS RO Bellville	Water Sector Support
Penina Sihlali	PS	DWS RO Bellville	RBIG
Anneke Schreuder	ASch	DWS RO Bellville	Berg WMA
Derril Daniels	DD	DWS RO Bellville	Berg WMA
Neels du Buisson	NdB	DWS RO Bellville	Berg WMA
Wilna Kloppers	WK	DWS RO Bellville	Resource Protection
Nicolette Vermaak	NV	DWS RO Bellville	Groundwater
Mike Smart	MS	DWS RO Bellville	Groundwater
Bertrand van Zyl	BvZ	DWS D:NWRI	
Jan van Staden	JvS	B-G CMA	
Catherine Bill	CB	D:EA&DP	Planning
Amina Suleiman	AS	D:EA&DP	Planning
Peter Flower	PF	City of Cape Town	D: Water & Sanitation
Barry Wood	BW	City of Cape Town	Bulk Water
Paul Rhode	PR	City of Cape Town	Bulk Water
Zolile Basholo	ZB	City of Cape Town	WC/WDM Strategy
Collin Mubadiro	CM	City of Cape Town	WC/WDM
Mogamat Shahied Solomon	MSS	City of Cape Town	WC/WDM
Rowena Hay	RH	Umvoto Africa	Study Director
Kornelius Riemann	KR	Umvoto Africa	Study Leader
Gerrit van Zyl	GvZ		
Jaco Human	JH	Worley Parsons	Team Leader
Mike Killick	MK	Aurecon	
Anton Sparks	ASp	Aurecon	
Arne Singels	ASi	City of Cape Town	
Tyl Willems	TW		
Willie Enright	WE	Water Right	

Appendix A:


SUPPORT TO THE CONTINUATION OF THE WATER RECONCILIATION STRATEGY FOR THE WESTERN CAPE WATER SUPPLY SYSTEM – ADMINISTRATIVE AND TECHNICAL SUPPORT GROUP MEETING #8 – 25 MARCH 2015

ATTENDEES:

NAME	AFFILIATION	e-mail address	Telephone no	Signature
Isa Thompson	DWS D.:NWRRP	ThompsonI@dwa.gov.za		
Fanus Fourie	DWS D.:WRPS	Fourief@dwa.gov.za		
Pieter Viljoen	DWS D.:WRPS	viljoenp2@dwa.gov.za		
Jenny Pashkin	DWS D.:WRPS	pashkinj@dwa.gov.za	012 336 8635 082 804 5145	
Nosipho Sombane	DWS D.:WUE	Sombanen@dwa.gov.za	021 941 6089 073 768 8348	
Tembi Masilela	DWS RO Belville	Masilelas@dwa.gov.za		Apology
Simpitwe Mashicla	DWS RO Belville	Mashiclas@dwa.gov.za		Apology
Anneke Schreuder	DWS RO Belville	Anneke@dwa.gov.za	021 941 6185 082 807 3536 021 941 6189	
Derril Daniels	DWS RO Belville	DanielsD@dwa.gov.za	082 908 3236	
Penina Sihlali	DWS RO Belville	Sihlalin@dwa.gov.za		
Neels du Buisson	DWS RO Belville	duBuisson@dws.gov.za	082 8022 896	
Mike Smart	DWS RO Belville	SmartM@dwa.gov.za		Apology
Nicolette Vermaak	DWS RO Belville	Zenzieb@dwa.gov.za	073 021 932	
Wilina Kloppers	DWS RO Belville	Kloppersw@dwa.gov.za	082 807 6191	
Bertrand van Zyl	DWS D.:NWRI	VanZylB@dwa.gov.za		

NAME	AFFILIATION	e-mail address	Telephone no	Signature
Jan van Staden	BOCMA	jstaden@becma.co.za <i>beza@qunif2.com</i>		
Catherine Bill	DE&DP	Catherine.Bill@westerncape.gov.za	021 483 2760	<i>CB</i>
Aminah Sulaiman	DE&DP	Aminah.Sulaiman@westerncape.gov.za		
Paul Rhode <i>PR KALUANDA</i>	CCT Bulk Water	Paul.Rhode@capetown.gov.za	021 987 242	<i>PR</i>
Peter Flower	CCT Bulk Water	Peter.Flower@capetown.gov.za	<i>Apology</i>	
Barry Wood	CCT Bulk Water	Barry.wood@capetown.gov.za	021 487 2586	<i>Bill</i>
Zolile Basholo	CCT WDM	Zolile.Basholo@capetown.gov.za		
Collin Mubadiro	CCT WDM	Collin.Mubadiro@capetown.gov.za		
Shahied Solomon	CCT WDM	MogamatShahied.Solomon@capetown.gov.za		
Rowena Hay	Umvoto Africa	Rowena@umvoto.com	021-7096700	<i>RH</i>
Kornelius Riemann	Umvoto Africa	Kornelius@umvoto.com		<i>KR</i>
Jaco Human	WorleyParsons	jaco.human@WorleyParsons.com	0844318728	<i>JH</i>
Gerrit van Zyl	Consultant	gerritvz@vodanmail.co.za	0769532600	<i>GZ</i>
Anton Sparks	Aurecon			
Mike Killick	Aurecon			<i>Apology</i>
Arne Singels	CCT Bulk Water	Arne.Singels@capetown.gov.za	084 242 2421	<i>AS</i>
TVJ Willems	Consultant		082 807 3540	<i>TVJ</i>
Willie Enright	Wateright	wateright1@gmail.com	0828073535	<i>WE</i>
David McFibon	Umvoto Africa	David.M@umvoto.com	0741060141	<i>DM</i>
Kevin Sanson	CCT Water	Kevin.Sanson@capetown.gov.za	0214872600	<i>KS</i>

Appendix B:

2015/03/27



Allocations from WCWSS

- Allocations (Status Report): **584.1 million m³/a**
 - Domestic use allocation: **410.5 million m³/a**
 - Agricultural use allocation: **173.6 million m³/a**
- Allocations (revised): **604.7 million m³/a**
 - Domestic use allocation: **419.3 million m³/a**
 - Agricultural use allocation: **185.4 million m³/a**

Domestic Allocations

- City of Cape Town: **385.9 million m³/a**
 - Fixed volume: **357.9 million m³/a**
 - Temporary volume: **28.0 million m³/a**
- West Coast DM: **22.8 million m³/a**
- Drakenstein LM: **2.1 million m³/a**
- Stellenbosch LM: **3.0 million m³/a**
- Overberg Water: **4.0 million m³/a**
- Piketberg & PPC: **1.5 million m³/a**
- **Total domestic allocations: 419.3 million m³/a**

Domestic Allocations

User	Licensed / permitted abstraction	Allocation from WCWSS	Allocation from own sources
City of Cape Town *)	388 700 000	385 900 000	12 800 000
West Coast DM	23 540 000	22 800 000	1 350 000
Drakenstein **)	3 177 000	2 309 000	1 068 000
Stellenbosch **)	15 125 000	3 000 000	8 125 000
Overberg Water	3 000 000	4 000 000	-
Piketberg and PPC	1 500 000	1 500 000	-
Urban total	440 642 000	419 309 000	23 343 000


*) Including full allocation from Berg River Dam and temporary allocation from Theewaterskloof Dam
 **) Excluding the supply via CCT and/or WC DM

Domestic Allocations City of Cape Town

Resource Name	Ownership	Agreement / License	Current Allocations
Berg River Dam	DWS	License pending	81.0
Berg River (Dotted Dam)	DWS	WRF agreement	70.4
Theewaterskloof Dam, fixed volume	DWS	WRF agreement	90.0
Theewaterskloof Dam, variable volume	DWS	WRF agreement	26.0
Pietermaritzburg	DWS	WRF agreement	22.5
Upper and Lower Steenbras Dam	CCT		40.0
Wenterskloof Dam	CCT		54.0
Total variable allocation for CCT from WCWSS			385.9
Total fixed allocation for CCT from WCWSS			257.8
Small dams	CCT		6.3
Aldon Spring	CCT		1.5
Atlantic Aquifer	CCT		5.0
Total allocation for CCT from own sources outside the WCWSS			13.8
Total allocation for CCT			399.7

Agricultural Allocations


- Voëlvllei & Misverstand
 - Lower Berg IB: 18.1 million m³/a
 - Additional registered: 2.8 million m³/a
 - Additional licences: 10.8 million m³/a
- Theewaterskloof Dam
 - Riviersonderend part: 46.2 million m³/a
 - Upper Berg River IB: 58.6 million m³/a
 - Wynlands & Banhoek: 30.4 million m³/a
 - Summer streamflow: 16.5 million m³/a
- **Total capped: 183.4 million m³/a**



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Agricultural Allocations Lower Berg River IB


Water User	Quota (m ³ /ha/yr)	Area (ha)	Volume permitted (million m ³ /a)	Allocated volume from WCMS (million m ³ /a)
Lower Berg IB - Summer	3,000	3,044	9,093	38.30
Lower Berg IB - Winter	3,000	2,302	6,906	
Lower Berg IB - Full Summer	4,000	3,044	12,132	
Lower Berg IB - Full Winter	4,000	2,302	9,208	
Additional registered users			2.76	2.76
Additional approved licences	7,000	5,255	16,400	30.75



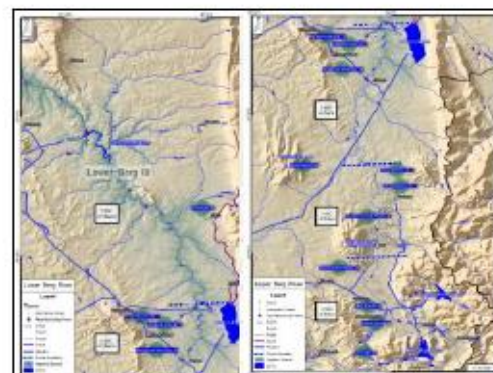
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Agricultural Allocations Additional Licences

Applicant	Irrigation Board	MS %	Area (ha)	Volume allocated (m ³ /a)
Overriding Boxes	Roosnek / Upper Berg Zone 2		30	330 000
Wynlands/Banhoek Workers Trust	Upper Berg Zone 2	40%	77	385 000
Aderna Appeldo Trust	Upper Berg Zone 2	40%	77	385 000
Hartkloof Workers Trust	Lower Berg IB	40%	215	1 505 000
La Rosa Group Workers Trust	Lower Berg IB	33.5%	215	1 505 000
Lyndel Petrusen Family Trust	Lower Berg IB	30%	215	1 505 000
MCSA Agri Tourism Infrastructure	Lower Berg IB	100%	215	1 505 000
Agri Empowerment Research	Lower Berg IB	30%	73,43	517 510
Phelung Sunflower Farms (Pty) Ltd	Lower Berg IB	30%	214,3	1 500 000
Total				8 602 510




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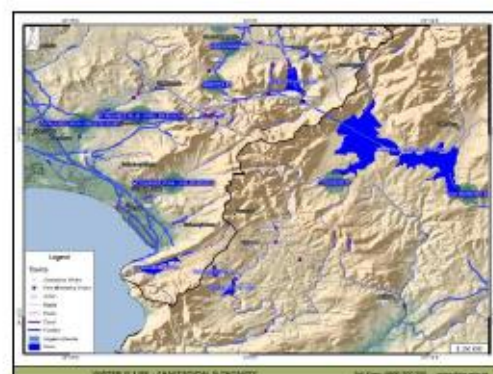


Agricultural Allocations Upper Berg River Main IB

Water User	Quota (m ³ /ha/yr)	Area (ha)	Volume permitted (million m ³ /a)	Allocated volume from WCMS (million m ³ /a)
Berg River IB (Quota 1)	4,000	35,174 (Summer)	74.9	58.6
Berg River IB (Quota 2)	5,000			
Berg River IB (Quota 3)	6,000			
Noord-Agter Pearl IB	5,000			
Suid-Agter Pearl IB	4,000			
Peeleberg IB	5,000			
Strensburg IB	4,000			
Strensburg IB (Dist 1)	4,000			
Strensburg IB (Dist 2)	5,000			
Strensburg IB (Dist 3)	5,000			
Roosnek Vastal IB	6,000	1,074 (Winter)		
Roosnek Waa IB (Dist 1)	4,000			
Roosnek Waa IB (Dist 2)	6,000			



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Agricultural Allocations Zonderend and Vyeboom

Water User	Quota (m ³ /ha/a)	Area (ha)	Volume permitted (million m ³ /a)	Allocated volume from WOMS (million m ³ /a)
Zonderend IB – Summer	6,000	4,452	26.71	31.50
Zonderend IB – Winter	6,000	1,389	8.33	
Vyeboom IB	7,100	1,852	13.15	13.20
Pump from Tull	7,100	Unknown		1.50

Agricultural Allocations Wynlands WUA & Banhoek IB

Water User	Quota (m ³ /ha/a)	Area (ha)	Volume permitted (million m ³ /a)	Allocated volume from WOMS (million m ³ /a)
Wynlands WUA:				
Helderbosch District	4,000	3,010	12.06	12.00
Wynlands WUA:				
Helderberg District	4,000	3,028	12.11	12.10
Wynlands WUA:				
Eerste River District	4,000	514	2.06	3.10
Wynlands WUA:				
Inhams			1.20	1.30
Banhoek IB	4,000	450	1.80	1.80
Others			0.18	0.18

- ### Additional requests
- Licence applications for
 - CCT full allocation of Berg River Dam yield **81 million m³/a**
 - CCT temporary allocation from Theewaterskloof Dam **28 million m³/a**
 - WC DM increase in allocation from Voëlvele Dam and Miverstand Weir **20 million m³/a**
 - Request for additional releases from Voëlvele Dam for Lower Berg IB **20 million m³/a**

- ### Options for reconciling Allocations
- Reducing assurance of supply for agricultural allocations
 - Moving temporary allocation for CCT back to agriculture
 - Split Berg River Dam yield between users
 - ...

- ### Options for reconciling Allocations
- Reducing assurance of supply for agricultural allocations
 - Current: 183.4 million m³/a at 98% assurance
 - Change to: **90% assurance**
 - Equals: 178 million m³/a at 98% assurance
 - Imbalance: >1 million m³/a

- ### Options for reconciling Allocations
- Moving temporary allocation for CCT back to agriculture
 - Domestic allocation: 391.3 million m³/a
 - Agriculture available: 204.7 million m³/a
 - Additional releases for Lower Berg IB and or West Coast DM: **~ 20 million m³/a**