



NAME		AFFILIATION	POSITION
Nic Faasen	NF	West Coast DM	
André Kowalewski	AK	Drakenstein LM	
Willie Enright	WE	Berg River Main IB	
Jan van Staden	JvS	Breede-Gouritz CMA	
Chris Milson	ChM	Green Cape	
Gerrit Van Zyl	GVZ	Consultant	
Rowena Hay	RH	Umvoto Africa	Study Director
Dr Kornelius Riemann	KR	Umvoto Africa	Study Leader
David McGibbon	DM	Umvoto Africa	
Jaco Human	JH	Worley Parsons	

APOLOGIES:

NAME		AFFILIATION	POSITION
Livhuwani Mabuda	LM	DWS CD: IWRP	Chair Person
Fanus Fourie	FF	DWS D: WRPS	Integrated Hydrological Planning
Dewald Coetzee	DC	DWS D: NWRI	Director Southern Operations
Rashid Khan	RK	DWS RO Bellville	Chief Director
Thembi Masilela	TM	DWS RO Bellville	Director Sector Support
Dr Hildegarde Fast	HF	D: Local Government	
Catherine Bill	CB	DEA&DP	
Dries van Taak	DvT	Stellenbosch LM	
Marius Brand	MB	D: Local Government	
Niel Muller	NM	D: Human Settlement	
Louis Bruwer	LB	Central-Breede WUA	
WD Bourbon-Leftley	WDBL	Berg IB	



MINUTES:

ITEM	DETAIL	ACTION	TIME
1	Welcome and Introduction Mr Tendani Nditwani (TN) welcomed everybody to the meeting and stated that he is standing in as chair for Mr Livhuwani Mabuda. He explained that the reason for the meeting is to maintain and update the strategy for the Western Cape Supply System.		
2	Attendance and Apologies Attendance and noted apologies were captured on the attendance register.		
3	Acceptance of Agenda The agenda was accepted with the following two changes: <ul style="list-style-type: none"> • The presentation on the Berg River Water Quality Partnership is moved between item 5.2 and 5.3. • The presentations for items 5.1.4 and 5.2 were switched. The minutes reflect the actual sequence.		
4	Approval of Minutes of Meeting No. 12 (15 October 2014)		
4.1	<i>Approval of Minutes</i> The minutes of the last SSC Meeting No. 12 of 15 October 2014 were approved without changes.		
4.2	<i>Matters arising not on the Agenda</i> All matters arising have been completed or will be covered in the meeting today. The only outstanding issue is: Item 7.3.3: Ms Boniswa Hene (BH) to liaise with Stellenbosch Municipality in order to get better co-operation.	BH	
5	Aspects that affect the WC WRS		
5.1	<i>Water Conservation and Water Demand Management (WC/WDM)</i>		
5.1.1	Report on CCT's progress with WC/WDM Mr Zolile Basholo (ZB) stated that he has not put a presentation together but there is a progress report that had been circulated to all the members after the last SSC meeting. He added that all issues discussed in the previous meeting are still outstanding. Dr Kornelius Riemann (KR) confirmed that the progress report was circulated after the last SSC Meeting No. 12 but suggested that an updated report be circulated again. ZB agreed to send the progress report to KR to redistribute. ZB explained that they have a budget of R15 million to deal with pressure reducing measures (new pressure reducing zones are established), leak detection, potential for re-use of treated effluent, spring water investigation, zone metering and meter maintenance. He added that the spring water study with the DWS has been completed and it is now in the implementation stage. He stated that they can present on it at the next meeting. He stated that the CCT has applied for a licence to use the spring water, which would be offset against potable water. The CCT has developed a small team to do maintenance and replacement works on leaking pipes and the CCT further continue with their pipe replacement	ZB	May 2015



ITEM	DETAIL	ACTION	TIME
5.1.2	<p>WC/WDM in the agricultural sector</p> <p>programme. ZB stated that they are intensifying the district metering and zone metering program.</p> <p>ZB explained that the CCT is working with the DWS to get all users to register in terms of the new GA and comply with that. He added that the CCT is submitting their water balance on a three-monthly basis to the DWS, which include a letter on their progress with regard to the metering of all raw water.</p> <p>Ms Isa Thompson (IT) requested an updated report be circulated in August 2015 to all members, before the next meeting, in order to include the information in the next Status Report. IT added that she would like to congratulate the CCT on the progress they are making in lowering the water requirements.</p> <p>ZB requested that the consultant reminds them to submit the progress report before the next meeting.</p> <p>ZB further mentioned that the CCT is also making use of 7 to 8 graduates to support them with their WC/WDM programmes. It is a three year programme.</p> <p>Andre Roux (AR) stated that the FruitLook program is running for 7 month (October to April) per year. Currently 751 subscribers are registered. These are not all farmers, but include advisors to farmers and researchers. AR explained that 26 652 hectares are subscribed to already, which is 16.5% of the total cultivated area. Of that, 2 670 irrigation blocks were already subscribed to in the previous season. This is because the subscribers want to compare the various seasons, so they re-subscribe.</p> <p>He explained that the website does not only provide information on water use and requirements, but also on growth of the plants which increases productivity and the health of the crop. He explained that they know how many people subscribe and how long they stay on the website but they have no control over the use of the product. Hence, they don't know how much water is saved through the initiative. He added that they received positive responses from the farmers on a questionnaire saying they are reducing their water use and electricity costs.</p> <p>AR stated that funds are always an issue and it is expensive to run the program on a yearly basis. He explained that the majority of the costs go into satellite imagery and field verification.</p> <p>AR explained that the internet connectivity in the rural areas is one of the challenges of the programme. In an effort to curb that issue, FruitLook will support the farmers by monitoring growth parameters in each block and if there is any variation to the norm, the farmer will be notified by sms. This will allow the farmer to go to the specific block to check on the problem.</p> <p>IT queried whether they still have funding only until April 2015, as was stated at the last SSC meeting. AR replied they only have funds till the end of this season, i.e. April 2015, and they are looking for additional R2.5 million for the next season. A loan is in place for R1 million, but funding remains a big challenge. It costs R5 million to run the project for an entire year and they only supply the service to a small area.</p>	<p>ZB</p> <p>KR</p>	<p>Aug 2015</p> <p>Jul 2015</p>



ITEM	DETAIL	ACTION	TIME
	<p>TN asked what the challenges of the project are. AR stated that they are working towards a system where people must pay for the service, so they have to re-register every year but at this stage it is free of charge and anyone can look at any block.</p> <p>Peter Keuck (PK) added that the water use for a season has a huge variation because the water requirements depend on how much rainfall and soil moisture is naturally available.</p>		
5.1.3	<p><i>Regulation for monitoring agricultural usage</i></p> <p>Paul Herbst (PH) reported that the draft regulation for monitoring agricultural water consumption is available for public comment on the DWS website.</p> <p>ZB stated that it is important that the regulation is clear. He asked how it will affect the farmers and what comments have been received already because it could have a huge impact on the farmers. PH stated that there were road shows but he is unsure who attended them.</p> <p>TN requested that the development and implementation of these regulations is monitored and reported on. Willie Enright (WE) stated that it will only be implemented for specific areas, not the entire country. DWS must decide which areas are important to start with. He said that one method to regulate the abstraction is to meter the abstraction rate. He added that due to high electricity costs farmers won't pump if they don't need the water. He stated that the farmers are willing to meter, if they are requested by the DWS to do so. WE further mentioned that metering must be done on at least an annual basis and can sometimes be done without an actual meter, through calculations from aerial photos and electricity costs. He and the farmers support the metering of water use. The method used for calculation of the water usage must however be approved by the DWS.</p> <p>AR stated that the regulation was discussed at the working group, but measuring an abstraction rate in l/s/ha is problematic; they should rather use m³/hectare/week.</p> <p>PH stated that for an integrated catchment management, measurement is critical and therefore the regulations will help a lot. He added a proper water balance for the Berg River cannot be prepared because not all abstractions are measured.</p> <p>KR responded that the challenge with the water balance is mainly the Lower Berg because there is no weir downstream of Misverstand to compare flows against the releases. He added that the dam releases are known and flows at upstream flow gauges are measured, but the split between river losses and abstraction by farmers is unknown. PH stated that we should start with the water balance with available data on the table and highlight shortcomings. KR and PH will discuss way forward outside of this meeting.</p> <p>IT added that a flow gauging station just above the estuary of the Berg River was planned. WE responded that they have not begun with the construction of it yet, but it will enable the DWS to do compliance regulation to see if water is being wasted by going out to sea or whether the estuary is supplied with enough water.</p>	KR/PH	Apr 2015



ITEM	DETAIL	ACTION	TIME
	<p>TN queried about the verification & validation process in the Berg River catchment, as that would assist the water balance. Mr Derril Daniels (DD) responded that they had started with the V&V process in the Lower Berg River a few years ago and they plan to complete the entire Berg catchment. However, approval of funds has been problematic recently. He stated that everything from the DWS RO side has been done but they are waiting for HO approval.</p> <p>ZB requested that the agricultural water allocations and use should be sorted out for the next meeting. He added that someone from the DWS, responsible for the regulation should present at the next SSC meeting.</p>	PH	Oct 2015
5.2	<p><i>Sustainable Water Management Plan</i></p> <p>Russell Mehl (RM) gave a brief presentation of the Sustainable Water Management Plan project that started in 2009 with the appointment of Aurecon and is now in its 2nd year of implementation.</p> <p>He then described the various goals:</p> <ul style="list-style-type: none"> • Goal 1 - Institutional and Capacity: effective co-operative governance and institutional planning; capacity at waste water treatment plants (WWTP), integrated licencing process. • Goal 2 – Water metering and monitoring: linked to water conservation and demand management, key indicators. • Goal 3 – Integrity of socio-ecological ecosystems: to enforce compliance. • Goal 4 – information management program. <p>He explained that his colleagues monitor 10 points along the Berg River for pesticides, E.coli and nutrients. He stated that they have investigated methods to improve the water quality, such as constructed wetlands. The various departments, DEA&DP, Municipalities, Department of Agriculture and DWS have formed a partnership to rectify the problem (see further presentations below).</p> <p>RM listed various projects that they currently undertake and future projects planned. He described alien clearing and that they are now re-introducing grown plants instead of seeds as rehabilitation measure with great success. They currently employ approximately 60 people from the Wolseley-Hermon area under that program.</p> <p>Mr Collin Mubadiro (CM) asked if biomimicry was being used in dealing with water quality issues in informal settlements. RM stated that they are using natural systems as micro filters to cleanse the water e.g. mushrooms (Mooiwater in Franschhoek was shown as an example).</p> <p>ZB asked about the alignment of the licencing processes. RM stated that DEA&DP is engaging with the DWS on all licences. DD explained that the licencing procedure between the departments is now integrated. RM confirmed that Working for Water falls under the DEA.</p>		



ITEM	DETAIL	ACTION	TIME
<p>5.2.1</p>	<p>Mr Izak Toerien (ITo) of the DLG raised his concern that a lot of the smaller Municipalities cannot come up with the funding required for the non-social component of the RBIG projects. IT mentioned that it is something that needs to be taken up with National Treasury.</p> <p><i>Invasive alien vegetation clearing</i></p> <p>Annabel Horn (AH) gave a presentation on the economic value of clearing of invasive alien vegetation. She explained that this is work in progress that she is working on with the CSIR and Stellenbosch University. The aim is to calculate the economic value of water released from alien clearing.</p> <p>AH described that the most effective approach to alien clearing is after fires and where the invasive vegetation is sparse as it is possible to clear an area totally and the process is manageable. Other aspects for prioritisation are type of species, expected economic value, expected additional water, improving biodiversity, employment of poorer people and access.</p> <p>She stated that the secondary quaternaries are used for the analysis. The available data for the analysis are based on the Water Information Management Solution (WIMS) database. The WARMS database is used to proportion the water use in the catchment into agriculture, forestry, domestic and industrial use, as this impacts on the economic value.</p> <p>AH gave an example of alien clearing in the G10A, G10B and G10C catchments in the upper Berg River, where she calculated that 26.5 million m³/yr of additional water is released due to alien clearing, which relates to an economic value of R45.5 million.</p> <p>IT noted that apart from the economic value, it will increase the low flow of the river which has an ecosystem benefit for the health of the river. IT requested that the environmental benefit be included in the economic valuation. AH responded that the environment is not assigned a rand value because water use gets only charged to forestry, agriculture, domestic and industrial users.</p> <p>WE asked how alien vegetation is included into the reconciliation strategy in terms of water availability or losses, as clearing should reduce the amount of losses. IT responded that Working for Water is contacted every time the yield model is updated.</p> <p>DD requested that Working for Water attend and give a presentation at the next meeting. PSP to arrange this in time.</p> <p>AH stated that it would be ideal to clear alien vegetation on both banks of the river for the entire river. DD stated clearing is carried out for a 100 m wide riparian zone along the Berg River, after which it is handed over to the land owners for maintenance.</p> <p>AH confirmed that she uses data collected between 2000 and 2014. She ended by stating that the WIMS database has huge benefits but still needs some work.</p> <p>5.2.2</p> <p><i>Berg River Water Quality Partnership</i></p> <p>Melissa Lintnaar-Strauss (MLS) gave a presentation on the progress with the Berg River Water Quality Partnership. She explained that by 2020 they would like to have restored the Berg River water quality back to an acceptable standard. She listed the various</p>	<p>Working for Water</p>	<p>Sept 2015</p>



ITEM	DETAIL	ACTION	TIME
<p>5.2.3</p>	<p>problems in the Berg River: salinity, fertilizers, nutrient enrichment, industrial outflows and polluted runoff from informal settlements. She explained that the partnership is made up of various roleplayers and explained the roles of these.</p> <p>She explained how the database that they develop will look and work and then listed the various challenges they are experiencing. MLS noted that they have included solid waste as a source of contamination and set up a solid waste indicator. She listed the various groups that are monitoring water quality in the Berg River catchment; viz. DWS, DEAD&P, Drakenstein LM, Berg River Irrigation Board, St Helena Forum, CSIR, University of Western Cape.</p> <p>MLS noted that the river water is still of an acceptable quality for agriculture use but not for recreational use. She added that they have set up a pollution management system to speed up the first response to pollution incidents and to warn the various users downstream.</p> <p>DD requested that all water quality data that the various parties have and are collecting in the Berg River should be shared with the DWS to enable centralization and sharing with all groups and researchers currently working on the Berg River.</p> <p>Mr Jan van Staaden (JvS) wanted to know whether the water quality in the Berg River is improving. MLS mentioned that the response time and communication is a lot better. There is also better co-operation from Local Government and the microbiological quality of the water is better.</p> <p>Berg River Water Quality</p> <p>Marlé Kunneke (MK) presented on the Berg River water quality. She stated that DEAD&P is doing some additional sampling because the monitoring network does not cover all relevant spots of concern for them. She explained that they want to gather a database of baseline water quality now so that if any restoration gets done, they will be able to assess if it is working. MK stated that the CSIR was appointed to do monitoring in 2013 and that they monitor chemicals, bacteria and trace metals.</p> <p>She noted that higher concentrations of E.coli are found near urban areas. She explained that they compared their results to that of the irrigation boards and they were very similar for the same period. MK stated that in August 2014 the Franschoek WWTW was de-established and since then there has been a 93% improvement downstream.</p> <p>However, there are still other pollution sources, as she illustrated with a picture of a stormwater pipe discharging black water from the Langrug informal settlement with a 10-times higher bacterial concentration. She explained that there was an increase in phosphate concentrations near Franschoek over December 2014.</p> <p>She stated that the metals are measured and compared against the Canadian guidelines and there are only a few spikes near the marina and informal settlements. The monitoring of pesticides never showed any significant results but this might be due to using the wrong methodology. She described that <i>ad-hoc</i> sampling revealed that there are still a lot of challenges with people illegally</p>	<p>All</p>	<p>Jun 2015</p>



ITEM	DETAIL	ACTION	TIME
5.3	<p>dumping and discharging waste into the river.</p> <p>She illustrated a map with all the current sampling points of the different organisations. MK stated that the way forward is for all the role players to join together and maximise their funds so that they monitor the river effectively. PK asked whether load shedding is having any negative effects on the WWTWs because they will be unable to treat the water properly and it could result in waste being released into the rivers. IT stated that in some provinces it is happening already and with disastrous results.</p> <p><i>Water allocations</i></p> <p>KR presented on the different water allocations from the system and how it influences planning. He showed a comparison of previously planned water requirements and current water consumption, indicating that the WC/WDM measures by the CCT helped to keep water requirements below the high-growth scenario. Given the original water requirement scenario, a new scheme would be needed by 2019. Due to the reduced water consumption that date can now be extended to about 2022, if the CCT can keep on implementing Water Conservation and Demand Management measures.</p> <p>He noted that the total allocation from the WCWSS was given in the Status Report 2014 as 584.1 million m³/a. The revised allocation is 583.8 million m³/a. The main difference appears to be the split between agricultural and domestic use. The availability (yield) is 582 million m³/a, which means that more water is allocated than what is available.</p> <p>KR explained that the difference in the domestic use allocations stems from the fact that the 28 million m³/a temporary allocation from the Theewaterskloof Dam to the CCT is not available, as it is allocated to agriculture. He explained that the total agricultural allocations come to 192.5 million m³/a. IT noted that there is a difference in the agricultural allocations with areas registered and areas actually irrigated.</p> <p>WE stated that the area of the Zonderend IB shown is incorrect; it is larger than the numbers in the presentation. Jan van Staden (JvS) stated that the winter allocation of 6 000 m³/ha/a is not correct. IT stated that the report and these tables have been circulated and requested that all members check them again and provide correct figures, where required. WE noted that there are a number of corrections that need to be made in the agricultural allocations. WE will also confirm the figures for the Eerste River.</p> <p>KR highlighted that various licence applications are pending, e.g. for the CCT and West Coast DM. He added that based on these findings the next intervention will be needed by 2020. The new date is due to the different allocations and the change in the yield of the system.</p> <p>JVS asked how much of the 28 million m³/a that was temporarily allocated to the CCT they can still take. KR explained that the 28 million m³/a was originally allocated to agriculture but was not fully used, so it was temporarily allocated to CCT but now with the additional agricultural licences being granted, there is less available. Peter Flower (PF) stated that DWS asked the CCT to apply for the</p>	All	May 2015



ITEM	DETAIL	ACTION	TIME
	<p>full 28 million m³/a and that the CCT has been paying for it since the 90's and is still paying for it.</p> <p>He added that the CCT applied for the 28 million m³/a in 2011, but they had no formal response from the DWS yet. He noted that the CCT objects to the report's recommendation that the application should be rejected. He added that the SSC is not the forum for this decision to be made and informed the SSC that he has sent a formal letter to the DWS Provincial Head, Mr Rashid Khan requesting a meeting to resolve this issue. He has had no response to that as yet.</p> <p>WE explained that 10 million m³/a is not available anymore, as licences for irrigation to that volume have already been issued, so it is not worth arguing with DWS over that. He then noted that the 28 million m³/a is made up of two sections, 18 million m³/a which resulted from water allocated but not taken up at the time of the agreement and 10 million m³/a reserved for agriculture.</p> <p>IT agreed that this is not the forum for this discussion and an urgent meeting is needed between the DWS, CCT, West Coast DM and the irrigation boards. She requested that DD set up this meeting. PF agreed that the meeting is needed but he requested a direct meeting between CCT and the DWS prior to the meeting with the bigger group.</p> <p>JvS noted that if the licences have been awarded then there is no more water available. IT agreed and stated that this needs to be resolved soonest so that we have correct data to populate and run an accurate model for planning purposes.</p>	DD/PF	May 2015
<p>6</p> <p><i>6.1</i></p> <p>6.1.1</p> <p>6.1.2</p>	<p>Monitoring the Progress with implementing the WC WRS</p> <p><i>Progress with current studies: CCT</i></p> <p>Water re-use feasibility study</p> <p>Paul Rhode (PR) reported that the CCT are making good progress with this study. They have completed the first phase, i.e. identifying possible re-use options, screened out some options and are now going to focus in more detail (technical and financial) on the selected options. Then two options will be identified and taken further. The biggest risk identified is public acceptance, so they are putting more emphasis into communications and ensuring an acceptable solution is finally proposed. They have prepared a draft strategy and it will involve the CCT communicating with the DWS. The CCT will firstly go to their Portfolio Committee and discuss it internally. IT asked if PR knows about the WRC funded study by CPUT on public perception of water re-use. He noted that they do and are involved with it.</p> <p>Desalination feasibility study</p> <p>PR presented on the findings of the desalination feasibility study. Some additional work included evaluating the growth of Cape Town's north western population. Initially they were going to look at a 150 MI/d plant but then they re-assessed it and an ultimate capacity of 450 MI/d over a three phased growth of 150 MI/d was decided on. He described the possible locations of the desalination plant, along False Bay or the Atlantic coast. The temperature of water has an influence on costs, warmer water is better, so False</p>	PR	Oct 2015



ITEM	DETAIL	ACTION	TIME
<p>6.1.3</p>	<p>Bay would be better but it is far away from where Cape Town is experiencing its current growth.</p> <p>This left an area north of Tableview. Koeberg forms a major concern because of its 5 km exclusion zone. The CCT therefore had to identify sites for the desalination plant outside of this zone, one north of Koeberg and one south at Melkbosstrand. However the advantage that Koeberg did present was that they might be able to share the seawater intake and brine outlet structures which are a major cost item in desalination.</p> <p>The process of desalination that was looked at was reverse osmosis because the others require heat and South Africa has a lack of energy. He explained that the planned desalination plant would be similar to the one in Perth. He described the design of the proposed plant and that it could be built in phases. To build a 450 MI/d desalination plant including marine intake and outlet works would cost approximately R15 billion excluding VAT but including a 30% contingency. If Koeberg’s intake and outlet works was used, it would reduce the cost by R2 billion. He noted that the operating costs are high, for a 150 MI/d plant it will cost R386 million per year. Currently the CCT is still waiting for an answer from Eskom.</p> <p>PR explained that they considered the operation of supplying the growing northern section of Cape Town.</p> <p>He noted that it gives an alternative supply to Voëlvlei and additional water for growing the northern suburbs. The first phase could be fast tracked to be operational by 2019 but there are many challenges and high costs. Some challenges are the fact that the CCT has never used this technology before, as well as the heavy financial burden, environmental considerations and high electricity consumption.</p> <p>He noted that it is important to do the investigation correct now because it can be used for any future designs.</p> <p>He described that future work will entail a pilot plant for water quality monitoring running for 12-24 months and reviewing the project. He added that further studies are required such as ecological surveys, heritage assessment, geotechnical investigations, toxicity determination, operational noise, EIA and preliminary design.</p> <p>Jaco Human (JH) asked if alternative methods of distributing water to the growing north have been investigated and what the cost implications were. PR stated that several options have previously been investigated as part of the Growth Plan, but that a cost comparison still needs to be done. CM asked if an increase in electricity prices has been included in the costs. PR stated that it has, taking into account the current situation. Barry Wood (BW) stated that no decision has been made by the CCT yet apart from undertaking this feasibility study. PF requested that this information be treated with discretion because Eskom does not want it released to the press.</p> <p><i>TMG Aquifer feasibility study</i></p> <p>PR stated that good progress has been made. The bid adjudication committee has approved it and the next phase of the study will go forward once the City Manager has signed it. The time for the</p>		



ITEM	DETAIL	ACTION	TIME
<p>6.1.4</p> <p><i>Lourens River Dam feasibility study</i></p> <p>PR explained that the Lourens River option is a small scheme. The Bulk Water Department of the CCT is working together with the Transport and Stormwater departments to combine the study, addressing both flood mitigation measures and possible bulk water supply.</p> <p>6.1.5</p> <p><i>Cape Flats and Newlands aquifers</i></p> <p>RH gave a presentation on the Cape Flats Aquifer Management Strategy. She referred to the handout available to the SSC members present. The purpose of the study is to establish the current state of the Cape Flats Aquifer (CFA) and develop a management strategy to improve the status. RH illustrated the urban development on the CFA over the last century and how this has changed the natural system of water flow to the coast. The natural dunes that used to store and attenuate water have been taken away. She illustrated how the system has evolved over time, with large volumes of water now being brought into the system from outside the catchment and this needs to be disposed of somewhere, which is predominantly the CFA and into False Bay. A result of this is winter flooding and contamination of the CFA and False Bay. RH asked that the DWS and CCT comment on the brief and expected outcome of the study.</p> <p>RH gave a brief description of the method used to develop the Cape Flats Aquifer Management Strategy; i.e. Driver-Pressure-State-Impact-Response (DPSIR). She noted that various departments of the CCT were consulted and that a future workshop with the relevant departments could be useful.</p> <p>RH described the immediate, short-term and medium- to long-term interventions that are proposed. She noted that the immediate concern is to arrest all current and potential pollution sources. Short-term interventions are local supply and bio-remediation of contaminated water. Medium- to long-term interventions include artificial recharge with suitably treated water from the WWTWs, e.g. Bellville WWTW, and bulk abstraction. She presented an initial mass balance model, built on a discrete event simulation (DES) model platform, but stated that estimates and or measured volumes from the WWTWs and storm water are required to upgrade the model. She added that sand thickness, rivers and bio-remediation ponds would be included into the model.</p> <p>RH noted that one of the concerns mentioned in interviews for potential local supply schemes was vandalism, which would be a risk. This has been addressed within the DPSIR framework and will be included in the strategy. She finally illustrated a draft table of contents for the strategy and asked for any comment to be sent to Umvoto.</p>	<p>extended exploratory phase has been reduced to 3 years.</p>	<p>DWS, CCT</p> <p>RH, CCT</p> <p>All</p>	<p>Jun 2015</p> <p>Jul 2015</p> <p>Jun 2015</p>
<p>6.2</p> <p><i>Progress with current studies: DWS</i></p> <p>6.2.1</p> <p><i>Surface water feasibility studies</i></p>	<p>IT stated that the status of the Voëlvelei Dam Augmentation Phase 1 feasibility study is still the same as in the previous meeting. They are waiting for the approval to go out on tender for the EIA.</p>	<p>MM</p>	



ITEM	DETAIL	ACTION	TIME
6.2.2	<p>Langebaan Road Aquifer Artificial Recharge scheme</p> <p>Nicolette Vermaak (NV) stated that the DWS and CSIR still have to meet for final agreements, but the terms of reference for the study have been redrafted and finalised since the last meeting. She mentioned that the procurement will hopefully happen in May 2015.</p>		
6.2.4	<p>WC WSS Annual Operating Analysis and Real-time Project</p> <p>IT stated that the dam levels are lower than normal at this time of the year, but that the rain season will hopefully bring relief for the current dry situation.</p>		
6.3	<p><i>Progress with current studies: Breede-Gouritz CMA</i></p>		
6.3.1	<p>Verification and Validation Study</p> <p>JvS stated that the V&V process is aimed to determine the lawful water use of a property, as per the National Water Act (Act of 1998). The CMA has completed the V&V process for 65 sub-catchments and verified about 600 million m³ of water use and 300 million m³ of water storage (2400 Title Deeds). He stated that the Central Breede area still needs to be completed, but this area is under very good control by the irrigation board anyway. The Lower Breede has been completed. Mike Smart (MS) asked how the process differentiates between groundwater and surface water use. JvS stated that the owner needs to indicate where they get their water from.</p>		
6.3.2	<p>Development of consolidated Catchment Management Strategy</p> <p>JvS stated that a CMS was previously compiled for the former BOCMA and that they are in the process of appointing a service provider at the moment for the drafting of the CMS for the newly established Breede-Gouritz CMA and will start in July 2015.</p>	JvS	
6.4	<p><i>Other Municipal Studies</i></p>		
6.4.1	<p>Drakenstein Municipality</p> <p>André Kowalewski (AK) stated that R1.5 million has been spent on replacing faulty meters and bringing down water pressures. The pressure in a certain section of Wellington's distribution network was reduced from 7.5 bar to 4.5 bar. He added that they have produced a public awareness DVD and had a Water Week campaign at the shopping mall where they handed out flyers. He stated that the following week they would be visiting schools to talk about water and how to use it efficiently. 480 Pupils also visited the new Meulwater WTW.</p> <p>AK stated that they have replaced 9 500 m of pipe and the water meters are being maintained. He added that they are redoing the hydraulic modelling of the water network with GLS, updating it and introducing a percentage step rising tariff system but as a whole they are running at above 95% efficiency.</p> <p>He described the various new capital projects that they are busy with – completing the last of two 11 MI reservoirs at Newton, new 10 MI/d Welvanpas WTW at an estimated cost of R99 million, 14 250 m Strawberry King water pipeline at an estimated cost of</p>		



ITEM	DETAIL	ACTION	TIME
	<p>R120 million (MIG funding, first phase of six phases), two 8 MI reservoirs at Fourtrai at an estimated cost of R52 million and replacing the old asbestos pipelines. The Paarl bulk sewer RBIG project started in 2009 (R243 million) for upgrading the main sewer drainage pipelines in Paarl (0.8 m to 1.56 m diameter).</p> <p>JvS asked what the percentage water loss in the municipality is. AK stated that water losses were originally 37% and were reduced drastically over the last number of years to 10% in 2007, but now they are at 14.1% (end of December 2014). This is mainly due to various vandalism cases that occurred during the last financial year. He noted that they have installed pepper spray systems to combat vandalism, specific at water pump stations.</p>		
<p>6.4.2</p>	<p><i>Witzenberg Municipality</i></p> <p>No one present to report. It was requested to get a written report for the Status Report and ensure attendance of the next SSC meeting.</p>	<p>PSP</p>	<p>Aug 2015</p>
<p>6.4.3</p>	<p><i>Stellenbosch Municipality</i></p> <p>No one present to report. It was requested to get a written report for the Status Report and ensure attendance of the next SSC meeting.</p>	<p>PSP</p>	<p>Aug 2015</p>
<p>6.4.4</p>	<p><i>West Coast District Municipality</i></p> <p>Nic Faasen (NF) stated that they need to upgrade the bulk water network of 1 200 km but that getting the required budget is a problem. However, if there is water available to them from the system, they will use it. He stated that their water loss is between 5% and 6%. PH asked if they are trying to reduce it to 5%. NF stated they are but it is hard with all the off-takes to rural settlements. JH further mentioned that the internal distribution losses of Saldanha Bay and Swartland Municipality are also below 15%.</p> <p>NF mentioned that until they've received feedback on their licence application, they can currently only continue with the Besaansklip and Vergeleë reservoirs. An additional 15 MI reservoir storage capacity is planned for Vergeleë. The District Municipality applied for RBIG funding from the DWS for four projects.</p>		
<p>6.5</p>	<p><i>Other relevant Studies</i></p>		
<p>6.5.1</p>	<p><i>All Towns Reconciliation Strategy Continuation</i></p>		
<p>6.5.2</p>	<p>IT stated they are updating the 2010/2011 strategies, there are 120 strategies for the Western Cape and 38 have been updated and approved already. She added that 5 more have been submitted for approval to the WC RO.</p> <p><i>WesCape development</i></p> <p>PR stated that there is doubt as to if it will go ahead or not but it did allow the CCT to assess how they would supply an area like WesCape with water. It was agreed to take it off the agenda for now.</p>	<p>PSP</p>	
<p>6.5.3</p>	<p><i>Economic Development Saldanha (Green Cape)</i></p> <p>Chris Milson (ChM) stated that he will be presenting on behalf of the DED&T and Green Cape, as Dr J Petrie has retired. He stated</p>		



ITEM	DETAIL	ACTION	TIME
	<p>that the project uses Saldana Bay as a case study. The database has been updated and they are investigating the implications of the proposed developments for water supply. He noted that the approach for this year is based on job development using a cost-benefit analysis (CBA) approach. He added that they investigate the possibility of water exchange through a small project with UCT. The early indications are that a pre-feasibility study is needed but that would require funding.</p> <p>IT requested an update on the project at the next SSC meeting. ChM stated that the project report is nearly complete and that it will then be circulated to all.</p> <p>6.5.4 Berg River Water Quality Partnership</p> <p>MLS gave the presentation as part of agenda item 5.2 (see above)</p> <p>6.5.5 Others</p> <p>NF stated that mining in the West Coast DM area is a concern because the aquifers are linked. He added that 160 boreholes monitor the area and the water is becoming contaminated and saline. He requested that the DWS intervene.</p> <p>PH showed some new WRC books that are available of studies completed recently and handed them out to municipalities attending. The titles are:</p> <ul style="list-style-type: none"> • Operation and Maintenance of Water Distribution Systems (TT 600/14) • 2030 Water Resource Group: Managing Water Use in Scarce Environments – a catalogue of case studies • Guidelines for Reducing Water Losses in South African Municipalities (TT595/14) • Energy Efficiency in the SA Water Industry: Best Practices (TT565/13) 	ChM	Sep 2015
7	Communication		
7.1	<i>Interaction on Provincial Level</i>		
	IT noted that Provincial Liaison Committee (PLC) meetings are meant to be scheduled every 4 months, but the last meeting was more than 8 months ago.	B Hene/TM	Oct 2015
7.2	<i>Communication with general public</i>		
7.2.1	Media release		
	The last drafted media release was not released, but is available on request. A new media release will be drafted for discussion and approval at the next SSC meeting.	PSP/DWS	Oct 2015
	KR mentioned that the website will be updated soonest with current information.	PSP/DWS	May 2015
7.2.2	Status report		
	IT stated that the Status Report 2015 will be prepared and submitted in draft format prior to the next SSC meeting for everybody to check details and provide comments.	PSP	Sep 2015



ITEM	DETAIL	ACTION	TIME
8	<p>General</p> <p>KR asked that Marlé Kunneke (MK) from the DEA&DP present some slides on the current Berg River water quality situation. This is reported on under agenda item 5.2 above.</p>		
9	<p>Next meeting of SSC and Closure</p> <p>The next SSC meeting is scheduled for the 8th of October 2015.</p> <p>It was suggested to hold the next meeting in Stellenbosch to allow the Stellenbosch LM to attend. The venue will be confirmed prior to the meeting.</p> <p>TN closed the meeting by thanking all for attending and stated that the Western Cape is doing brilliantly compared to other areas and it is good that when they are faced with challenges they are finding ways to deal with them themselves.</p> <p>He thanked the Drakenstein Municipality and André Kowalski for their hospitality in hosting the meeting.</p> <p>The meeting was closed at 13:30.</p>	PSP	

ATTACHMENTS:

- Item 5.2.2 Presentation by Melissa Lintnaar-Strauss on Berg River Partnership
- Item 5.3 Presentation by Kornelius Riemann on the water allocations in the WCWSS
- Item 6.1.5 Presentation by Rowena Hay on the Cape Flats Aquifer Management Strategy
- Item 6.4.1 Presentation by André Kowalewski for the Drakenstein Municipality

SIGNATURE ORIGINATOR




 Umvoto Africa



 Date

SIGNATURE DEPARTMENT OF WATER AND SANITATION



 CD: IWRP



 Date

INVITED:

ORGANISATION	MEMBER	POSITION
Western Cape Provincial Government		
Department Agriculture	André Roux	
	Peter Keuck (Sec)	
D: Human Settlements	Niel Muller	
	Emmanuel Muanza	
Cape Nature	Pierre de Villiers	
DEA&DP	Chris Rabie	- Planning Branch
	Catherine Bill	
	Russel Mehl	
	Wilna Kloppers	
	Zaahir Toefy	- Environmental Branch
Local Government	Hildegard Fast	
	Marius Brand	- Municipal Infrastructure
	Izak Toerien	
National Government		
State Security Agency	Dr Patrick Hlabela	
Local Authorities		
City of Cape Town	Peter Flower	D: Water & Sanitation
	Barry Wood (alt)	- Bulk Water
	Paul Rhode (alt)	
	Arne Singels	
	Kevin Samson	- Waste Water
	Zolile Basholo	- WDM & Strategy
	Collin Mubadiro	
	Jaco de Bruyn	- WC/WDM
West Coast DM	Nic Faasen	
	Henk Matthee (alt)	
Cape Winelands DM	Francois van Eck	
Drakenstein	Andre Kowalewski	
Stellenbosch	Dries van Taak	
	Esias De Jager	
Witzenberg	Nathan Jacobs	
Bergrivier	Jaco Breunissen	
Department of Water and Sanitation		
Regional Office	Rashid Khan	Chief Director
	Anneke Schreuder (alt)	
	Boniswa Hene	Director - Regulatory Support
	Tony Brutus	
	Thembi Masilela	Director - Water Sector Support
	Simpiwe Mashicila	- RBIG
	Mike Smart	- Groundwater
	Nicolette Vermaak (alt)	

ORGANISATION	MEMBER	POSITION
Chief Directorate: Integrated Water Resource Planning (Head Office)		
- Chief Director	Livhuwani Mabuda	Chairperson
- National Water Planning	Tendani Nditwani	Act. Director
	Isa Thompson	CE: South
	Salona Moodley	
- Options Analysis	Menard Mugumo	
	Tinashe Chizema	
- Water Resource Planning Systems	Beason Mwaka	
	Fanus Fourie (alt)	Groundwater
	Jenny Pashkin (alt)	Systems Operation
Chief Directorate: Regulation		
- Water Utilisation	Flip Nöthling	Irrigation Compliance
Chief Directorate: Water Use (Head Office)		
- Water Use Efficiency	Paul Herbst	Director
	Jannie Fourie	
	Nosipho Sombane (alt)	
Climate Change		
- Research & Advice	Smangele Mgquba	Director
	Neswiswi Azwidohwi	
Chief Directorate: Water Ecosystems		
- Water Resource Classification	Esther Lekalake	
Water Resources Infrastructure: Southern Operations (EC & WC)		
- Operations	Dewald Coetzee	
	Bertrand van Zyl (alt)	
- Construction		
CMAAs		
Berg-Olifants/Doorn	Ashia Petersen	Acting CEO
	Derril Daniels	
Breede-Gouritz	Phakamani Buthelezi	
	Jannie van Staden (alt)	
WUAs		
Berg IB	Willie Enright	
	WD Bourbon-Leftley	
Central-Breede WUA	Louis Bruwer	
Winelands WUA		
Overberg Water Board	Richard Edson	
PSP		
Umvoto Africa	Kornelius Riemann	
	Rowena Hay	
	Gerrit van Zyl	
WorleyParsons	Jaco Human	
Invited Guests		
SmartAgri	Stephanie Midgley	
Green Cape	Chris Milson	
Working for Water		

