



**Minutes of the Strategy Steering Committee for the Implementation and Maintenance of the Reconciliation Strategy for the KwaZulu-Natal Coastal Metropolitan Area Water Supply System**

**Meeting 5**

**Tuesday, 11 September 2012, Durban Jewish Club**

		Notes / Actions
1.	<p><b>WELCOME AND INTRODUCTION OF MEMBERS</b></p> <p>Mr Peter van Niekerk (Department of Water Affairs – DWA) chaired the meeting and welcomed everyone to the fifth meeting of the Strategy Steering Committee (SSC) for the KwaZulu-Natal Coastal Metropolitan Area Water Supply System.</p>	
2.	<p><b>ATTENDANCE AND APOLOGIES</b></p> <p>A round of introduction was held. An attendance register can be found at the back of the minutes. The following apologies were received:</p> <p>Johan van Rooyen, DWA</p> <p>Pieter van Rooyen, WRP</p> <p>Mr Kurt Fortuin, DWA</p> <p>Mark Summerton, Umgeni Water</p> <p>Kevin Meier, Umgeni Water.</p>	
3.	<p><b>ACCEPTANCE OF AGENDA</b></p> <p>The draft agenda was accepted with two additions under General:</p> <p>10.1 Update on the National Water Resource Strategy; and</p> <p>10.2 Fracking in the study area.</p>	
4.	<p><b>MINUTES AND MATTERS ARISING FROM MEETING 4</b></p>	
4.1	<p><b>Minutes</b></p> <p>The minutes were accepted as a true reflection of meeting 4 held on 14 March 2012.</p>	
4.2	<p><b>Matters Arising</b></p> <p>The following matter arising from the previous minutes were discussed, because it was not covered in the agenda:</p> <p>7.5.1.c) Mr Paul Herbst (DWA) said the issue of lowering pressure at national level will be taken further. <i>Mr Herbst reported that the SABS has formed a technical committee (Number 138) that is currently busy investigating pressure regulation and an announcement should be made before the end of this year.</i></p>	

## 5. STATUS AND RECAP SINCE THE LAST SSC MEETING

### 5.1 Water balance update and supply situation

Mr Niel van Wyk (DWA) presented the water balances depicting the water reconciliation situation in the Mvoti, Mdloti and Mgeni River Systems which were updated based on the latest water requirement projections and augmentation intervention schedules. These water balances were updated with two scenarios:

Scenario A: Including re-use of treated effluent; and

Scenario B: Excluding re-use of treated effluent.

The recommendations of the study team are:

- The continuous implementation of WC/WDM initiatives are of vital importance.
- The water requirement projection for the Mvoti Supply Area should be revised and the actual water use should be monitored and tracked.
- The actual water used for both the Mdloti and Mgeni River Systems exceed the water requirements projections slightly and revised projections will be available in October 2012.
- The water balances should be updated based on the revised water requirement projections.

#### Discussion

- a) Mr Steve Gillham (Umgeni Water) commented that there are still uncertainties on future water needs and we do not have an idea what the deficits will be on Scenario B. We must look at the potential options and work out if they are indeed future options. The Mdloti System, for example, has shown a large variation from what was expected. Mr van Wyk agreed and said this was a first attempt to put future options on paper and it needs more development. The DWA must, however, show it flexibility by investigating all options.
- b) Ms Di Jones (Dolphin Coast Conservation and WESSA) found it disturbing that so few municipalities are attending these meeting. It is also worrying that there is a big difference between the information regarding water availability discussed here today and information discussed at a recent investment forum at iLembe District Municipality. Mr van Wyk agreed that it is a major problem if the same information is not used by all stakeholders in the water sector. The DWA sends out information such as the progress reports of this meeting to all stakeholders, but the municipalities have not been well-presented at meetings in this process. Ms Angela Masefield (DWA, KwaZulu-Natal) will communicate the correct statistics to the relevant municipalities.
- c) Mr Bryan Ashe (Geosphere) added that they have asked repeatedly to have meetings with all stakeholders involved to discuss future developments, because some of these projects such as industrial expansions are unrealistic, because there is no water available.
- d) Mr Speedy Moodliar (eThekweni Metro) commented that they have asked Umgeni Water to fast-track the Ngwadini Dam due to potential water problems that could develop in the near future. Mr Gillham replied that the key driver is to see what resources are available and the numbers must be finalised.

### 5.2 Mgeni System: Effect of load shift

Mr Colin Talanda (WRP) provided feedback on the investigation to evaluate the impact of the projected load shift from the Lower to the Upper Mgeni System through the implementation of the Western Aqueduct.

The following conclusions have been reached:

- According to the selected criteria a minimum load shift volume of 22.5 million m<sup>3</sup>/a (62 MI/day) can be supplied to the Western Aqueduct, up to a maximum of about 45 million m<sup>3</sup>/a (123 MI/day).

See attached presentation for more details

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	<ul style="list-style-type: none"> <li>• Load shift has a slight impact on the risk of curtailments/ restrictions.</li> <li>• The rule used in the configuration to generate the presented results will be used to determine the acceptable load shift volume on an annual basis.</li> </ul> <p><b>Discussion</b></p> <p>a) Mr Gillham enquired why a three-month storage buffer in Midmar Dam was used? Mr Talanda explained that both three-month and six-month buffer volumes were used in the analysis. The three month buffer volume was selected for more detailed analysis of the assurance of supply.</p>	
<b>6.</b>	<b>UPDATE ON PROGRESS OF THE IMPLEMENTATION OF THE RECONCILIATION STRATEGY</b>	
<b>6.1</b>	<p><b>Spring Grove Dam and Hazelmere Dam</b></p> <p>Mr Tony Moore (DWA) gave an update on progress regarding the building of the Spring Grove dam (operational early 2015) and the raising of the Hazelmere Dam wall and improving the stability of the dam wall (operational late 2014).</p> <p><b>Discussion</b></p> <p>a) Mr Ashe asked what construction options were chosen to improve the stability of the Hazelmere Dam? Mr Moore replied that anchors cables through the wall into the foundation rock below will be used. The safety upgrades will be done simultaneously with the raising of the dam wall.</p> <p>b) Mr Gillham enquired if the R360 million is the total cost of both the safety measures and the raising of the dam wall? Mr Moore replied that the R360 million is only for the raising of the dam wall and this cost will be passed on to the water users. The additional costs incurred for improving the dam safety will come from a different budget and this cost will not be passed on to water users.</p>	<b>See attached presentation for more details</b>
<b>6.2</b>	<p><b>North Coast Pipeline</b></p> <p>Mr Gillham informed the meeting of the progress made with the North Coast Pipeline since the last meeting in March 2012.</p>	<b>See attached presentation for more details</b>
<b>6.3</b>	<p><b>Lower Thukela Bulk Water Supply Scheme</b></p> <p>Mr Gillham presented progress made with the Lower Thukela Bulk Water Supply Scheme. The most important issue was that environmental authorisation (EA) was granted on 24 August 2012.</p> <p><b>Discussion</b></p> <p>a) Ms Masefield added that the DWA is trying to escalate the funding for this project and obtaining a water use license is not a concern.</p> <p>b) Ms Jones added that it seems strange that an EA was granted without the power supply being part of the EIA. Mr Gillham said the power supply was part of the environmental impact assessment (EIA), the relevant route of the transmission lines must still be decided. There are most probably a list of conditions that must be adhered to in the EA.</p> <p>c) Mr Ashe asked for a copy of the EA.</p> <p>d) Mr Ashe also suggested that Umgeni Water must investigate the usage of renewable energy to provide power for this project. Mr Gillham replied that this will be investigated.</p>	<p><b>See attached presentation for more details</b></p> <p><b>Steve Gilham</b></p> <p><b>Steve Gilham</b></p>

	<p>e) Mr Moodliar wanted to know if Umgeni Water plans to increase the water treatment capacity of the Hazelmere WTP to address the shortfalls experienced over the December period. Mr Gillham replied that this has already been addressed with an additional 5MI/day capacity at the Hazelmere Water treatment plant.</p>	
<b>6.4</b>	<b>Water Conservation and Water Demand Management</b>	
<b>6.4.1</b>	<p><b>eThekwini Metro</b></p> <p>Mr Simon Scruton (eThekwini Metro) provided an update on water conservation / water demand management (WC/WDM) in eThekwini during the past six months. Social compliance is a problem with over 30 000 illegal connections and Non-Revenue Water (NRW) will drop by 10% if this could be solved. Pressure standards in distribution systems must be minimised as per global trends.</p> <p><b>Discussion</b></p> <p>a) Mr Gillham asked if eThekwini is ‘winning the war’ regarding WC/WDM. Mr Scruton admitted that the situation is getting worse. The number of informal settlements, for example has increase from 280 to over 500 in the study area. These settlements are not linked to the eThekwini infrastructure, but need water to live. The current recession has also contributed to less people paying their municipal accounts.</p> <p>b) Ms Khumbuzile Moyo (DWA) asked if any water savings were made since the last meeting in March 2012. Mr Scruton said no savings were made and due to various factors NRW has gone up by 2%.</p> <p>c) Mr Ashe wanted to know how eThekwini keep track of all the new developments, because many houses are being built with no water connections. This results in many home owners doing their own connections. Mr Scruton admitted that it is a difficult task, but many municipal officials are working on these problems with, for example, full-time plumbers only working in informal settlements. The housing programme is very problematic for eThekwini and also very political. Mr Moodliar added that the big issue is uncontrolled connections and eThekwini is looking at ways to stem this.</p> <p>d) Ms Jones added that millions are being spent on infrastructure. She understands that water cannot be privatised, but why not privatise the management of infrastructure such as water treatment plants. Mr Scruton replied that eThekwini does source out some of the work, but the core business is managed by eThekwini officials. There are examples of municipalities that have outsourced everything, but this can lead to problems when the private partners are profit driven. Mr Frank Stevens (eThekwini) added that they believe if someone can do a specific job cheaper and better, then it will be out sourced.</p> <p>e) Mr Maxwell Pawandiwa (Ugu District Municipality) commented that illegal connections will not be made if water is connected to all new houses. Mr Scruton agreed, but there are budget constraints.</p>	See attached presentation for more details
<b>6.4.2</b>	<p><b>iLembe Municipality, Ugu District Municipality and Msunduzi Municipality</b></p> <p>Mr Mark Shepherd (Joat Consulting) presented an update on WC/WDM in the Ugu District Municipality, iLembe District Municipality and Msunduzi Local Municipality. A summary of his report is:</p> <p><b>Ugu DM</b></p> <ul style="list-style-type: none"> <li>• Increase in billing.</li> <li>• Leaks and water losses have been reduced.</li> </ul> <p><b>iLembe DM</b></p>	See attached presentation for more details

- Sales not increasing, but 2000 new connections.
- Massive problems with unmetered connections
- About 59% NRW and getting worse.

#### **Msunduzi LM**

- Sales went up by 4000 but income did not increase.
- NRW is 53%.

#### **Discussion**

- Mr Ashe commented that the equitable share is only for free basic water and not normal operations and maintenance in the manner that Msunduzi is using it. Mr Michael Singh (DWA) explained that the equitable share can be used by municipalities to make up a budget shortfall.
- Mr Singh enquired why the water statistics for Ugu DM is far better than other municipalities. Mr Shepherd replied that a variety of factors contributes to this. The water supply systems are relatively small in Ugu and pressure management is being used. The response time to repair leaks is also very fast. There is strong management with a good team that drives the NRW reduction programme.
- Ms Masfield asked that the report back on iLembe should be on the whole area they have to supply.

### **6.5 Mgeni System: Desalination Plants**

Mr Gillham presented the progress made with the investigation into possible seawater desalination plants. The most important milestone for the past six months has been that a service provider has been appointed to do an EIA.

#### **Discussion**

Mr Ashe commented that desalination is too expensive for South Africa and the costs must be investigated very carefully. Mr Gillham acknowledged that it is expensive, but added that the energy costs of desalination are being reduced as technology improves. Various renewable energy sources are also being investigated. The investigation must first be completed to see what the real costs will be and various options are being investigated.

Mr Ashe commented that the iLembe municipal manager stated that desalination is a done deal at a recent investment forum.

### **6.6 Mkomazi River Transfer Scheme and Mvoti River Development Projects (Including the Lower Mkomazi Scheme)**

#### **Mkomazi River Transfer Scheme**

Mr Kevin James (BKS) presented progress made with the technical feasibility study on the Mkomazi Water Project Phase 1. A service provider will be appointed soon to do an EIA of this proposed project.

#### **Mvoti Water Project**

Mr Kobus Bester (DWA) reported little progress since the last meeting. It is anticipated that the feasibility studies will start by December 2012 and will take 3 years to complete.

#### **Discussion**

- Mr van Niekerk asked if the pressure tunnel will be using a pump or just gravity. Mr James

**See attached  
presentation for  
more details**

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	<p>replied that only gravity will be needed. .</p> <p>b) Mr van Niekerk commented that small dams may develop sedimentation problems. Mr James agreed and added that this will be investigated.</p> <p>c) Dr Mandla Buthelezi (NAFU) enquired if the dam will be providing water to small-scale farmers as well. Mr James explained that irrigation farming will be the main user of the dam, but small scale farming will be investigated downstream of the dam.</p> <p>d) Mr Ashe asked if many communities will be affected by this dam and will it be necessary to relocate communities. Mr James replied that it seems that some communities have to be moved but this will be thoroughly investigated during the EIA.</p> <p>e) Ms Jones enquired if the possibility of an off-stream dam can be investigated that is not built in the middle of a river or stream, because it is environmentally more acceptable. Mr James said the dam is planned for in the river, but the EIA will set out conditions to protect the environment.</p> <p>f) Mr Gillham asked if the needs of the ecological reserve have been taken into consideration. The ecological Reserve requirements will be determined in the Ecological Reserve Study currently being undertaken by the DWA. These requirements will then be taken into account in the dam design and yield calculations.</p> <p>g) Mr Ashe enquired about the public meetings during the EIA process. Mr James replied that these will be held at a later stage once the EIA process has started.</p>	
<b>6.7</b>	<p><b>Utilisation of Treated Effluent</b></p> <p>Mr Bill Pfaff, eThekweni Metro presented progress made on the feasibility study that recommended using treated effluent from the Northern and KwaMashu sewage treatment works for further treatment to a potable water standard and be discharged directly into the aqueducts supplying the northern areas from the Durban Heights water treatment works. The most important development during the past six months has been a petition with 5000 signatures opposing this development.</p> <p><b>Discussion</b></p> <p>a) Mr Gillham asked if the amount of potable water that will be added to the system through re-use has been established. Mr Pfaff answered that this will still be investigated. A long process still lies ahead and many aspects of water reuse must still be studied. Public opinion must first be tested; an EIA must be completed as well as a water use license. Once all systems are in place, then all the options will be compared to see what can be replaced or used in combinations. But we must first reach a stage where we can look at all options on an equal base. The quantity of raw sewage reaching the estuaries is deteriorating the plant life and water reuse is a possible way to solve an environmental issue. It will be expensive but it is far too early in the study to drop water re-use.</p> <p>b) Mr van Wyk announced that there will be an international conference on water reuse in Durban from 9 to 11 October 2012. He asked Mr Andre Joubert to distribute this information to all SSC members. Mr Pfaff added that one of the international speakers who is an expert on contaminants in water will be available after the conference to hold a session for people from eThekweni, Umgeni Water and SSC members. Contact Mr Pfaff if you are interested.</p>	<p><b>See attached presentation for more details</b></p> <p><b>Study team</b></p>
<b>7.</b>	<b>INSTITUTIONAL ARRANGEMENTS</b>	
<b>7.1</b>	<p><b>System Operation Management Forum</b></p> <p>Regular meetings are taking place.</p>	

## 7.2 Water Savings Forum

Ms Masfield reported that a provincial committee has recently been established.

### Discussion

Mr Ashe complained that civil society has not been included in these meetings. Ms Masfield replied that there was no intention to exclude civil society and Mr Ashe and civil society are welcome to attend the forum.

## 8. COMMUNICATION

Mr van Wyk said the standard procedure will be followed:

- The study team will prepare a draft media release, draft minutes and adjust the progress report within one week;
- The draft documents will then be submitted to the DWA for their review (DWA to review within two weeks after the SSC meeting);
- The draft documents will be distributed to all SSC members at the end of week two for their review and comments. A deadline date for comments will be included; and
- The team will consider and incorporate all comments and send out final versions of the documents to all SSC members.

### Discussion

- a) Mr van Niekerk mentioned that the draft progress report contains dates that makes no sense in the section regarding desalination and the EIA process. Mr Coleman will adjust the progress report with the new information

Study team

## 9. NEXT PHASE: RECONCILIATION STRATEGY MAINTENANCE

Mr van Wyk stated that the contract of the current study team will end in March 2013 and the budget has almost been exhausted. There is still some work left to be done by the study team. A approval has been given to put a new contract out on tender.

### 9.1 Decision Making Framework

Mr van Wyk reported that a lot of work has been done on the decision making framework and discussions have been held with eThekweni officials about various projects in the study area. Some work still needs to be done and Option B must be further investigated.

Mr Pfaff added that one of the main concerns was the original timetable for water reuse dictated that public consultation had to start in October 2012 and a service provider for construction had to be appointed early next year. It is still too early for both these processes. These processes can only be started once all the information from all the studies becomes available and the future augmentation options re-assessed.

## 10. GENERAL

### 10.1 Update of National Water Resource Strategy

Mr Ashe asked before the meeting for a presentation on the roll-out of the update of the National Water Resource Strategy which is out on comment and it will be interesting how this study interacts with the SSC.

Mr van Niekerk explained that there will be a national rollout programme done by the DWA regional offices to inform the public. Ms Masfield added that the KZN office is preparing engagements for later in September and October to which Mr Ashe and the rest of the public will

	be invited.	
<b>10.2</b>	<b>Fracking</b>	
	<p>a) Mr Ashe commented that the fracking moratorium has been lifted. Fracking could also take place in this study area, because there is a concession area near Usuthu which falls in the study area. We should take care that our dams are not polluted by fracking. Mr van Niekerk said this must be kept in mind by the study team and the DWA.</p> <p>b) Mr Gillham asked if the DWA has an official position on fracking and if not it should come out with a position sooner or later. Mr van Niekerk responded that the DWA does not yet have a position on fracking. There are various points in the fracking process where the DWA could get involved: contamination, hydrological position, water that will be required for the actual process and also to see if there is enough water. It is not yet clear where the DWA will feature in this process. Companies must first do an EIA and apply for a water license before any fracking may begin.</p> <p>c) Mr Ashe added that civil society will be watching fracking very carefully and will revert to legal action if necessary.</p>	
<b>11.</b>	<b>WAY FORWARD</b>	
	The next meeting will be held on Tuesday, 19 February 2013. Mr van Niekerk thanked the study team for its effort as well as all the presenters at these meetings. All SSC members were also thanked for their participation in this process during the past three years.	

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