



## water affairs

Department:  
Water Affairs  
**REPUBLIC OF SOUTH AFRICA**

**Directorate: National Water Resource Planning**

### **VAAL RIVER SYSTEM**

#### **STRATEGY STEERING COMMITTEE FOR INTEGRATED WATER RESOURCE MANAGEMENT**

#### **MINUTES OF MEETING 6**

DATE: Wednesday, 18 April 2012  
TIME: 09:00 – 15:00  
VENUE: Motsweding Conference Room, 16th Floor,  
Gauteng Regional Office, Department of Water Affairs,  
Bothongo Plaza East, 285 Schoeman Street, Pretoria

#### **ACTION**

##### **1. WELCOME AND INTRODUCTION OF MEMBERS**

The Chairman, Mr Peter van Niekerk (Department of Water Affairs – DWA), welcomed all to the sixth meeting of the Vaal River System (VRS) Strategy Steering Committee (SSC). The members were given an opportunity to introduce themselves.

##### **2. ATTENDANCE AND APOLOGIES**

The attendance register has been attached.

The following apologies were received:

Mr Johan van Rooyen, DWA  
Ms Nosie Mazwi, DWA Northern Cape  
Ms Rachalet Cronje, DWA  
Ms Shane Naidoo, DWA  
Ms Marie Brisley, DWA North West  
Mr Etienne Hugo, Johannesburg Water  
Mr William Moraka, SALGA  
Ms Judith Taylor, Earthlife Africa  
Dr Garth Batchelor, Mpumalanga Economic Development, Environment, Tourism  
Mr Deon Dippenaar, Sedibeng Water  
Dr Jack Armour, Free State Agriculture  
Mr Rickus du Plessis, North West Agriculture, Conservation, Environment  
Mr Martin Ginster, Sasol  
Ms Thembi Mkhize, Emfuleni Local Municipality  
Mr Dave Smith, SAPPI  
Mr Francois van Wyk, Rand Water

**3. ACCEPTANCE OF AGENDA**

The agenda was accepted with no changes.

**4. APPROVAL OF MINUTES OF THE PREVIOUS MEETING**

The minutes of Meeting 5 held on 19 October 2011 were approved with minor changes.

**5. MATTERS ARISING FROM MEETING 5 ON 19 OCTOBER 2011**

The results from the risk analysis (Meeting 5, Item 6.7) were presented in this meeting by Mr Pieter van Rooyen (Study Team). Other matters arising from Meeting 5 are discussed under Communications (Point 9)

**6. FEEDBACK ON KEY STRATEGIC ACTIVITIES**

**Progress reports on the strategy activities, prepared by the participants of the responsible organisations, were handed out at the meeting to support the feedback presentations.**

(The presentations will be sent out with the final minutes and the final consolidated Progress Report will be distributed by 9 May 2012).

**6.1 WATER USE COMPLIANCE AND ENFORCEMENT**

Mr Hennie Smit (DWA) reported back on the latest developments and progress regarding water use compliance and enforcement, which focus on illegal water use for irrigation.

The following aspects were highlighted:

- Good progress has been made with the Validation and Verification of water use in all three the Vaal Water Management Areas.
- The Minister requested further stakeholder engagements before the draft Regulations (submitted for approval during November 2011) are published for comments and a team has been composed to drive this process.
- The eradication of unlawful irrigation water use in the VRS will not be met by 2012, but the aim is to address 66% of possible unlawful use in VRS by May 2013.

**Discussion**

Mr Thomas du Toit (Save the Vaal Environment) said he is very grateful this enforcement is being done but he would like to see more action with regard to water pollution.

Mr Samson Mokoena (Vaal Environmental Justice Forum) said that he sees only one side of enforcement. There is no mention of the unlawful use of water by mines, which are operating without water use licenses.

Mr Smit replied that when dealing with unlawful water use by mines, water quality is the main

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issue. This study only looks and investigates the unlawful water use by irrigators.

Mr Van Niekerk responded that there are various water uses in accordance with the National Water Act, however, in this project only the taking of water for irrigation are of interest.. These questions relate to water quality and its effect on the Vaal River water users and are being dealt with by other processes in DWA. Mr Smit is referring to the quantitative water use and the large group of unlawful users (irrigation) and how they are dealing with these infringements.

Mr Coenie Erasmus (Free State Tourism, Environment and Economic Affairs) queried whether the total volume mentioned was for all illegal water use.

Mr Smit responded that it was only for unlawful water use by irrigation farmers.

Mr Phineas Malapela (Vaal Environmental Justice Alliance) said that there are other unlawful users other than the farmers. Someone had to take responsibility for these illegal uses.

Mr Smit agreed that there are many other issues but the statistics in his presentation referred to dealing with unlawful irrigation.

Mr Seef Rademeyer (DWA) said that it was decided to first concentrate on the irrigation sector, because its unlawful water use poses a major threat to the water supply of the VRS.

Mr Andries Meyer (Sasol) asked if there are any actions that can be taken to expedite the publication of the regulations.

Mr Van Niekerk said that if the SSC feels there is a delay then it needs to be addressed and included into the Progress Report.

Mr Meyer asked if the scenarios have been adjusted to include this delay in solving unlawful water use.

Mr Van Rooyen said this will be done and discussed at the next meeting.

Mr Nic Opperman (Agri SA) said that they promote compliance with the National Water Act but farmers say they have registered and are using water on that basis even if the water use have not yet been verified. Agri SA has recently published an article in the Landbou Weekblad to clarify the processes of the Act as a further endeavour by them to inform farmers of the correct procedures such as that the registration of water use does not give the user the right to that water. Mr Smit confirmed that Agri SA is supporting this processes as was illustrated by them partaking in the recent launching the National Water Week and measures to close down an illegal water user.

Prof Johann Tempelhoff (North West University) requested that the report mentioned in the presentation be made available.

Mr Van Niekerk said the latest Progress Report mentioned will be made available to all SSC members within the next few weeks.

**Study Team**

**Mr Pieter van Rooyen**

**Mr Joubert**

## **6.2 WATER CONSERVATION / WATER DEMAND MANAGEMENT**

### **a) Presentation by the DWA**

Mr Paul Herbst (DWA) said the Minister of Water and Environmental Affairs requested a meeting with the Big 4: the three Gauteng Metros and Emfuleni Local Municipality to discuss the pollution in the Upper Vaal and Crocodile (West) Marico Water Management Area and also to discuss water conservation and water demand management (WC/WDM). A planning meeting was held on 5 April 2012 between the DWA, the three Gauteng Metros and Sedibeng District Municipality.

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He further said that the following background and DWA perspective was provided at the meeting:

A study was done to investigate the potential for WC/WDM across all sectors: industry, mining, agriculture and domestic (municipal). It was found that the municipal sector has the highest potential for water savings. All municipalities within VRS were assessed for their potential contribution towards WC/WDM, including costs. Rand Water usage is the largest in the VRS – 41% - thereafter the Vaal-Harts irrigation scheme in the Lower Vaal. The current focus is therefore on the Rand Water users. There is a potential for WC/WDM in all municipalities of 200 million cubic meters per annum which equates to roughly 15% reduction in annual demand – Project 15%! The greatest potential for WC/WDM lies within the four biggest metros/municipality, therefore the current emphasis on Johannesburg, Tshwane, Ekurhuleni and Emfuleni Municipality.

Some of the issues to be discussed with the Minister are:

- Big 4 need to indicate understanding of the seriousness of the water situation;
- Big 4 need to re-commit, re-prioritise municipal activities, re-prioritise budget and step up implementation of WCWDM;
- New Water Use License to Rand Water – volume already reduced – impact on economic growth and development – DWA will cut back – no economic growth - reasons will become clear;
- DWA – already started ranking “good” and “bad” performers;
- All Metros to submit action plans by week of 13 April 2012 to Mr Justice Maluleke (DWA). Consolidated Action Plans must cover, time frames, municipal funding plans, sourcing of funds, (sufficient to show impact), monitoring mechanism that must be measurable; and
- SALGA must indicate the role they can play in addressing some of the problems highlighted in the meeting.

## Discussion

Mr Van Niekerk suggested that all comments be held until after the municipality presentations.

### b) Presentations by the municipalities

#### City of Tshwane

Mr Lourens Lötter presented a report on progress made with reducing water demand and improving Non Revenue Water (NRW), which is currently at 24.4%.

The City of Tshwane has a water demand strategy containing 25 main items with each item vital for reducing water use in a municipality. A scoring system is also used to measure the strategy and to see if Tshwane is providing the service expected by the ratepayers.

Funding is a major problem and the biggest headache for the next few years will be upgrading the water infrastructure of the municipalities (Nokeng and Kungwini) that were incorporated into Tshwane in May 2011. There are many unmetered housing estates in these two former municipalities that receive water.

WC/WDM interventions at Tshwane include:

- Preparing detailed monthly water balance (very few municipalities in South Africa prepare

## ACTION

regular water balances);

- Meter audits in 15 industrial areas. Results determined for 4 of 15 areas to date show an increase in revenue of R3 million per year;
- Meter audits for all irrigated road islands (293 connections);
- 2179 domestic meters installed for unmetered houses in Mamelodi and Soshanguve in 2009. If a low consumption of 15kl per property per month assumed then additional metered consumption of 292 220 kl/year @ R6.71 = additional income of R2.6 million per year;
- 32760 bursts/leaks repaired and 50 927 water meters replaced per year;
- 282,2 km length of mains replaced from 2005 to August 2011;
- 30 School's workshops held in 2010/11 to promote water conservation; and
- 90 Community workshops held in 2010/11 to promote water conservation reaching 2881 community members.

## Discussion

No questions.

## Ekurhuleni Metropolitan Municipality

Mr Connie Ras said they know exactly what to do with regard to WC/WDM, but the problem lies in challenges regarding the execution of the projects. There has been a slight decrease in NRW, but it still stands at 38,5%. To further decrease NRW, Ekurhuleni is currently focusing on four main projects:

- **Replacement of Mid-Block Mains** - Mid-block mains is one of the biggest contributors towards water losses. Ekurhuleni has a definite plan to eradicate the mid-block problems over the next couple of years. R39 million has been budgeted over the next 3 years for this purpose.
- **Pipeline Upgrading** - The upgrading of municipal water mains is an on-going pipeline rehabilitation process and R113 million has been budgeted over the next 3 years to replace old pipelines.
- **Pressure Management** - Pressure management is regarded as a quick-win initiative to reduce water losses and the setting up of pressure management zones in Ekurhuleni is well advanced. However, the management of the installations needs to be outsourced until sufficient internal capacity has been created and an as-and-when contractor needs to be appointed for day-to-day maintenance.
- **Leak Repair Project** - Based on the prioritisation / sorting of zones from the highest to the lowest NRW, Tsakane/Langaville/Geluksdal was identified as the area within Ekurhuleni with the highest losses and therefore as the area with the biggest potential to reduce water losses. An indigent leak repair project is already showing signs of promise.

## Discussion

Mr Jan Potgieter (Department of Agriculture, Forestry and Fisheries) enquired about the

figure for leaks, if this was per month.

Mr Ras replied that this figure was for leaks per year.

### **Johannesburg Water**

Ms Mbalie Matiwane said the City of Johannesburg has drafted a revised WC/WDM strategy that is awaiting approval to align it with Project 15% requirements. NRW currently stands at 40%.

Funding is still the biggest problem facing Johannesburg Water who requested a budget of R447,945,000 but was allocated only R130,000,000 for the 2011/12 financial year. Based on the budget available for WC/WDM, only the following interventions were implemented:

- Water Mains Replacement; and
- Soweto Infrastructure Upgrade project.

Existing programmes maintained through Operation and Maintenance budget include:

- Pressure Management;
- Active and passive leakage control; and
- Reservoir and Tower Monitoring.

The programmes and interventions put in place to limit or reduce real losses within the water reticulation system, is contributing to the reduction in the water demand in an effort to contribute to the overall 15% reduction.

Currently demand will exceed supply capacity of the current system by 2014, implying that no growth in demand can be accommodated between 2013 and 2018.

If funding is not available it will be difficult to achieve the required savings to contribute to the 15% reduction that's required in the Upper Vaal System.

### **Discussion**

Mr Malapela asked if this is the same water which comes from Lesotho. Is any attempt being made to source water locally?

Mr Van Niekerk stated that we should look at water demand as a facet within a broader picture. This question should be addressed to the DWA. Here we are dealing with distribution of water.

Ms Matiwane responded that the catchments for these water resources are handled by the DWA.

Mr Mokoena asked if the Soweto residents have accepted water meters by now, because a court battle was fought a few years ago to prevent the City from installing pre-paid meters into houses.

Ms Matiwane responded by saying that people are accepting the project and the installation and enforcement of meter usage is going well. Currently 58 000 stands have meters.

### **Metsi-A-Lekoa (Emfuleni Local Municipality)**

Mr Dawid Dirks said effective and sustainable WC/WDM interventions entail the

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implementation of a mixture of appropriate activities within four strategic pillars:

- Technical Interventions;
- Economic Interventions;
- Social Interventions; and
- Legislative and Institutional Interventions.

Projects to improve WC /WDM include:

- **Pressure Management:** The Pressure Station in Sebokeng/ Evaton is a bench mark project delivering outstanding savings with low inset costs. Savings since 2005 is R 174 million, which is 9 - 11% of total municipal consumption.
- **Retrofitting:** This is being sponsored by Sasol and GIZ (a German aid organisation). It started in April 2012 and 20 000 houses are targeted to the target is 6% savings on total water purchases. Another project is being sponsored by Rand Water which will be targeting 1900 houses.
- **Network upgrades:** The Palm Springs new bulk water connection is being upgraded. It will cost R 3.4 million and is 50% complete. The new supply will result in lowering the overall water supply pressure in Evaton. The Sharpville Reservoir refurbishments will cost around R 2.2 million and involves the refurbishment of pressure reducing valves (PRV) in Vereeniging. The Quaggasfontein Reservoir is 90% completed and will cost about R 25 milion. It will provide water supply to the new Tshipeso housing development and also improve flow and pressure.
- **Special Projects:** Deloitte has been appointed to streamline the billing process and tenders have been advertised for the pilot project.

## Discussion

Mr Phineas Malapela stated that he has received feedback that there are permanent rivers due to burst pipes. Maybe this was long ago and the problem has now been resolved.

Mr Dirks responded by saying that pipe bursts will always occur due to the old infrastructure and the pressure areas.

Mr Mokoena said Emfuleni has many problems with its water infrastructure and the billing system also has problems.

Mr Du Toit said that he lives in the area and he hasn't had a meter reading in three years. It is also a nightmare to sort out a water account at the municipality.

Mr Dirks said these specific problems are being investigated.

Mr Herbst said that there needs to be a prioritising of funding and allocation of funds. In order to get more funding, representatives need to go back to the financial people and get them to action the plans we propose. We need to find out how these action plans will be achieved.

Mr Meyer said municipalities should share their best practises. The usage potential of water is decreasing and we can share practical experiences on how best to handle this.

Prof Tempelhoff commented that if more funding is needed, then the private sector must be involved.

Mr Herbst said we will have serious problems by 2015 with regard to sufficient water in the VRS. There is a lot of hard work ahead until 2015.

**c) Presentation by Rand Water**

Mr Kobie Maré (Rand Water) said WC/WDM has not had a significant effect on the demand for water in the Rand Water area of service. Water demand is expected to continue along the high growth trend. Rand Water is planning to upgrade its infrastructure to meet the high growth trend. In times of drought the constraint will lie with the availability of raw water and the risk of running out of water is therefore much higher than the planned risk.

**Discussion**

Mr Mokoena asked if Rand Water differentiate between municipalities that are committed to WC/WDM and others who fail to implement these measures.

Mr Van Niekerk said that if the SSC decides some municipalities are not committed to this project, then their representatives will have to take this message back to their organisations and encourage them to commit to WC/WDM.

Mr Maré said in times of sufficient rain such as during the past decade, water never really becomes a problem. However, during drought, measures such as water restrictions and an increase in water tariffs will be enforced.

Prof Tempelhoff commented that we are sitting in a situation where some authorities are not reducing their water consumption. Municipalities also do not have to produce their own potable water. Rand Water was created specifically to support these municipalities. Authorities are not realising the importance of water management. There should be an increase in the penalties for infringements. The authorities should be forced to be involved and take responsibility.

Prof Tempelhoff said the re-use of water must also be investigated.

Mr Van Niekerk said water re-use is part of the VRS Strategy and indicated the strategy reports are available on the DWA webpage.

Mr Maré said that Rand Water's bulk sanitation division is there to assist municipalities in sewage management if directed to do so by the Minister.

**6.3 IMPLEMENTATION OF THE INFRASTRUCTURAL AUGMENTATION OPTION**

Mr Peter Pyke (DWA) reported that South Africa and Lesotho signed an agreement in Maseru last year for the implementation of the second phase of the Lesotho Highlands Water Project (LHWP). Phase 2 of the LHWP will consist of the building of the Polihali Dam and a water delivery system to supplement the water in the VRS.

This agreement must still be ratified by the South African Parliament.

In the meantime, preparatory work is being finalised and the project is still on track to deliver water to the VRS by 2020.

**Discussion**

Mr Erasmus asked what role does the Sterkfontein Dam play in the VRS.

Mr Pyke said the Sterkfontein Dam acts as the emergency reserve for the VRS. When the Vaal Dam is low then the Sterkfontein Dam is used to supplement the water. The gates of the Sterkfontein Dam have not been opened in 12 years. Should they be opened, then you know



we are entering a severe drought.

#### **6.4 WATER QUALITY STRATEGY AND FOCUS ON ACID MINE DRAINAGE**

- a)** Mr Marius Keet (DWA) presented the short term interventions for Acid Mine Drainage (AMD). A Due Diligence Review on available infrastructure and potential solutions which was concluded in July 2011 and short-term treatment solutions for each basin have been conceptualised.

Construction works are nearing completion and Stage 1 commissioning of the treatment plant by 20 April 2012 which will increase treatment capacity from 12 to 24 ML/day. The Stage 2 commissioning by the end of April 2012 will achieve the maximum capacity of ~35 ML/day. Agreements with Rand Uranium (treatment plant) and Mogale Gold (sludge disposal) to be finalised by the end of April 2012

Four bids for short-term solutions were received and the evaluation of the bids will be finalised by 20 April 2012. The TCTA, which was appointed by the DWA, will recommend plausible options to DWA that falls within the current funding (R433 million). The TCTA intends to award the bid by mid-May 2012 and construction is projected to commence by the end of May 2012.

Some of the challenges facing this project are:

- There is only R433 million while an estimated R1 billion is needed to solve this problem.
- Access of land – The DRD is only prepared to make South West Vertical Shaft and land available with specific conditions. Expropriation is currently being investigated by the TCTA, but National Treasury is against this option. Meetings will be held with DRD to try and solve this problem.

#### **Discussion**

Mr Lötter asked about the indication of volumes in the basins?

Mr Keet said the figures for the basins are as follows:

- Western Basin: 32ML/day;
- Central Basin: 56ML/day; and
- Eastern Basin: 80 - 100ML/day.

- b)** Mr Jurgo van Wyk (DWA) presented the feasibility study for a long-term solution to address AMD in the West, Central and East Rand Basins.

Important dates in the AMD project are:

#### **Short-Term Solutions**

- To stop decanting in the West Rand Basin;
- To protect the ecological control levels (ECLs) in the Central Rand Basin (June/ July 2013); and
- To protect the ECLs in the East Rand Basin (June 2014).

#### **Long-Term Solution**

- To remove the mine water induced salt-loading (i.e. 2014/15)

### Study Background

Aurecon SA, SRK Consulting and Turner Townsend were appointed on 30 January 2012 to investigate and recommend a feasible long-term solution to the AMD problems emerging in the study area, in order to ensure long term water supply security and continuous fitness for use of Vaal River water.

### Study Status

Meetings have been held with key stakeholders such as Federation for Sustainable Environment, Universities, Rand Water, Treasury, etc.; The first Study Stakeholder Committee meeting is scheduled for early in May 2012 and members have already been invited; and processes followed are flexible and will enable conventional implementation as well as implementation through Public Private Partnership or Public-Public Partnership mechanisms.

### Initial findings

Desalination of AMD is driven by the possible reduced assurance of supply in the Vaal River System by 2014/15, because there is a serious risk that the VRS requirement will not be met if conventional project implementation processes are followed after the completion of the Feasibility Study. Alternate implementation methods will be needed.

A feasible solution (one that is technically sound, economically viable, institutional feasible and legally acceptable) is being sought as a matter of urgency.

- c) Mr van Wyk also reported on progress made with the Integrated Water Quality Management (IWQM) Strategy during the last six months.

The aim of the Strategy is:

- **Maintaining or improving the WQ** of the water resources within the System for the benefit of all recognized water users and beneficial water uses in order to assist in securing ecologically sustainable development, while also promoting justifiable social and economic development;
- Managing the water resources of the System in order to **comply with the determined integrated Resource Water Quality Objectives (RWQOs)**;
- Controlling the **salinity, eutrophication and microbiological contamination** levels in the System, and major tributaries, as the key WQ issues identified;
- **Improving source management** controls and measures as a means to limit and control point and diffuse sources that significantly impact on the water resources of the System; and
- Improving management of the water resources of the System by more effective **monitoring, assessment, reporting and management participation**.

### Summary of salinity status

- Total Dissolved Solids (TDS) data limited in places;
- General reduction in TDS concentrations from 2005 to 2011;
- Vaal Barrage and Middle Vaal improvement due to mine discharges stopping; and
- Meeting RWQO in most reaches.

**Summary of nutrients status**

- Phosphate data limited;
- Average phosphate concentrations are high;
- Upper reaches Oligotrophic;
- Vaal Dam has deteriorated;
- Vaal Barrage to Bloemhof Dam hypertrophic, requiring urgent attention; and
- Nutrient balance studies must be undertaken to understand contributions from sources so management actions can be devised and taken.

The first Vaal River Integrated Water Quality Management SSC meeting is scheduled for July 2012.

**Discussion**

Mr Malapela said the 'polluter pays principle' must be used to get industry to pay for AMD.

Mr Van Wyk said this principle will be applied. Mines that have benefitted in the past will be approached to contribute to the solution of the AMD problem.

Mr Van Niekerk said that pollution in general should be addressed, not just the mining industry. The 'polluter pays principle' must be applied to all polluters.

Mr Van Wyk said the Waste Discharge Charge System (WDCS) will be used to get polluters to pay for pollution, especially to improve the salinity in the VRS.

Mr Du Toit commented that the discharge from a Sasol pipeline at the Barrage is causing serious pollution to the VRS. The DWA needs to prosecute polluters, because polluting water is a criminal offence.

Mr Van Niekerk responded to say that this is not the forum for this discussion but this case can be reported to Mr Keet outside of this meeting. This SSC focuses on developing strategies for implementing solutions.

Mr Erasmus asked why the TDS in the Bloemhof Dam showed an improvement from 601 mg/l in 2005 to 482 mg/l in 2011.

Mr Van Wyk does not know why, but reported that an investigation is planned.

Mr Mokoena commented that these strategies are not communicated to the catchment forums on the ground. The DWA officials do not engage with the public and information does not flow down.

Mr Van Niekerk said this is a valid point and all DWA officials must take note of this.

Mr Rademeyer said during the VRS Reconciliation Strategies Study, regular feedback was given to the 13 catchment forums in the Upper VRS. Progress of the current study has not yet been given to the forums, but this will be done soon.

**Mr Rademeyer**

Ms Tovho Nyamande said officials from the Directorate: Water Resource Classification have visited various forums during the past year

Prof Tempelhoff asked about the status of the AMD in the Central Basin.

Mr Keet said there are various points of view regarding the AMD in the Central basin, but it is

being closely monitored.

Prof Tempelhoff asked what the costs associated with the AMD would be and if the budget given is the final budget.

Mr Van Wyk said the current feasibility studies are also working on providing a more accurate budget.

## **6.6 VAAL WATER MANAGEMENT AREAS CLASSIFICATION STUDY**

Ms Tovho Nyamande reported back on progress made with the classification of significant water resources in the three Vaal Water Management Areas (WMAs). The goal of the study is the implementation of the Water Resource Classification System (WRCS) in the three Vaal WMAs which follows a 7-step process.

The classification of water resources will help in maintaining the desired state of the water resources by setting a Management Class (MC) for every water resource. A MC facilitates the balance between protection and use of the water resources. A MC is defined by taking into account the social, economic & ecological landscape and the process requires co-operation and transparency with all stakeholders.

Since the last SSC meeting, Step 4 has been completed. This step entailed the identification of Ecological Sustainable Based Configuration scenarios (ESBC) which is the minimum level of protection to maintain ecosystem health. During Step 5, eight different scenarios have been created which will be evaluated with the assistance of the public during Step 6. The next meeting of this study's Project Steering Committee takes place on 17 May 2012.

## **6.7 RECONCILIATION SCENARIOS REVIEW**

Mr Seef Rademeyer (DWA) presented a review of the Reconciliation Scenarios for the VRS. The water balance and reconciliation scenarios are constantly being revised as information changes. No changes were made and the Strategy therefore remains as it was at the previous meeting.

### **The following strategic interventions are vital for the future of the VRS**

- Eradication of unlawful water use by 2013;
- Implementation of WC/WDM (Project 15%) – achieve target savings by 2015;
- Implementation of Phase 2 of LHWP by 2020;
- Mine water effluent treatment and use by 2014;
- Plan yield replacement scheme in Orange – 2034;
- Manage uncertainties regarding the Crocodile (West) System and the Olifants System.

### **Crocodile (West) System Water Balance**

This is under review due to possible future water requirements in the Lephalale area by Eskom. This will be updated before the next SSC meeting. A possible transfer will be required from the VRS in the form of treated waste water. The VRS reconciliation balance will be updated accordingly and will be discussed at the next SSC.

**Mr Van Rooyen**

### **Risk Analysis**

Scenarios were evaluated for flushing releases from the Vaal Dam for algae management in

## ACTION

and downstream of the Vaal Barrage. It was found that releases of about 26 million m<sup>3</sup>/annum are possible without affecting the date when Phase 2 of the LWHP will be required.

### Information under review

- The final results from the verification study will be applied to the scenarios when available;
- Commissioned Orange River Reconciliation Strategy Study; and
- Revision of long term water requirements and return flow scenarios with data from Census 2011 is recommended.

## Discussion

Mr Meyer said the water balance graphs create a false sense of security by adding water to the VRS that has not yet been conserved such as the eradication of unlawful water use, AMD and WC/WDM.

Mr Peter van Niekerk explained that the April meeting is used to give comprehensive feedback on the implementation of the strategies and Mr Seef Rademeyer added that the October meeting should be used to reconsider the reconciliation scenarios, during which time the contingency plan for the eradication of unlawful irrigation can be considered for example.

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Mr Maré noted the graphs currently state *'everything is fine, if...'* and Mr Meyer says it should state *'everything is fine, unless the stated interventions are successful'*.

Mr Rademeyer commented that the neighbouring Systems need to sort out their own problems, before asking the VRS to supply shortfalls. At the moment, it is still foreseen that the Crocodile West's shortfalls will be supplied from the VRS, but the general feeling is that the Olifants System, for example, must find their own solutions.

Mr Lötter commented that groundwater can contribute 1% of Tshwane's water.

Mr Rademeyer said groundwater is already being pumped at Zuurbekom by Rand Water from the dolomitic compartments at volumes considered to be safe.

## 7. DISCUSSIONS and COMMENTS

At the last meeting it was suggested that this SSC give a score out of five (With 5 being excellent and 1 being very bad) for each of its strategic actions to show how confident the members feel about each action.

### Water Use Compliance and Enforcement

4/5

Mr Meyer said there is a delay in some of the actions and that is a concern.

Mr Maré pointed out that the significant reduction achieved in unlawful water use is a major success.

### Water Conservation / Water Demand Management

2/5

Mr Maré said this was the first time good plans were announced in this meeting, but the fact that no reduction in water use has occurred should also be considered.

Mr Herbst said credit should be given for the work done but we're not there yet and the period between 2015 and 2020 is still a major concern. Lack of budget is also a major obstacle.

## **ACTION**

### **Implementation of Infrastructural Augmentation Option 4/5**

Mr Meyer said that there are delays with the project which is a concern.

Mr Pyke is, however, confident that the 2020 target of water delivery to the VRS will be met.

### **Water Quality Management 3/5**

Mr Van Niekerk said there are major concerns with water quality, but there are good plans to solve the situation. Releases are still needed from the Vaal Dam to clean the VRS.

Mr Keet said people have been appointed in the long-term strategies and the short-term goals are within reach.

## **8. CONFIRMATION OF MEMBERSHIP**

The chairperson asked if the members would like to nominate any other organisations, bodies or persons that are not represented on this committee. Everybody was satisfied that the SSC is well-represented.

Mr Malapela suggested that the Mvula Trust be included as a representative from civil society as a key stakeholder.

**Mr Joubert**

## **9. COMMUNICATION**

Mr Rademeyer apologised on behalf of the DWA for the breakdown in the communication plans set out in the last meeting. The existing time frames for the minutes, progress report and media release will be followed. These plans are as follows:

Mr Rademeyer said the draft minutes will be sent to members within a week of this meeting (25 April 2012). Another week will then be allowed for all members to send in corrections of the minutes (2 May 2012). Thereafter, another week will be given for the draft progress report, draft media release and draft newsletter which will be sent to members by 2 May 2012 for their review. Another week later the final progress report will be sent to SSC members by 9 May 2012 for distribution to their management and colleagues.

**Mr Joubert**

The final newsletter will then be sent to all stakeholders and placed on the website. It will also be sent to all municipal councillors in the study area.

## **10. DATE OF NEXT MEETING**

The next meeting will be on 10 October 2012 at 09:00.

## **11. WAY FORWARD AND CLOSURE**

Mr Van Niekerk thanked the members of the SSC for their attendance.

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