



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Water Resource Protection As Per National Water Resource Strategy (NWRS2) Progress Report for March 2016

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What role does the Freshwater Ecosystem Network (FEN) play in the achievement of Chapter 5 NWRS2

- ▶ NWRS2 is a water sector plan and not the DWS plan
- ▶ DWS is the lead agent in ensuring its implementation
- ▶ and also relies on sector partners
- ▶ Chapter 5 of the sector plan- comprises of the following stakeholders:
 - ▶ DEA, SANBI, WWF, DMR
 - ▶ Environmental sectors felt strongly that an implementation plan be developed in order to protect water resources.

- Chapter 5 consists of various strategic objectives and activities which were agreed to by environmental sector.
- Some include activities that are included in the DWS APP and can directly be accounted for by DWS.
- However some activities are the work of other stakeholders.

- The role that the FEN can play is to ensure that the targets set in Chapter 5 are monitored on a quarterly bases to ensure that they are achieved.
- Assist and cooperate by lending resources to ensure that the activities are achieved.

Strategic action 1: Manage for sustainability using resource directed measures

Activity	Target	Progress for quarter
<p>1.1 Set and approve a management class, and associated Reserve and resource quality objectives (RQOs) for every significant water resource in the country.</p>	<p>Number of river systems with determined resource quality objective</p>	<p>Reserve: Gouritz and Usuthu WMA. Olifants, Letaba, Lower Orange and Upper Vaal still in progress Classification and RQOs: Vaal, Olifants and Olifants Doorn. Berg, Breede-Gouritz, Crocodile West (Marico), Mokolo, Matlaba, Letaba, Inkomati, Mzimvubu and Mvoti-Umzimkulu.</p>

Strategic action 2. Invest in strategic water source areas

Activity	Target	Progress for quarter
<p>2.1 Explore the Environments categories of protected areas under National Environmental Management Protected Areas Act (NEMPAA) as an option to improve the protection of water resources in Strategic Water Source Areas, and apply it where appropriate</p>	<p>SWSA in stressed catchments have been declared as protected areas (either under NWA or NEMPAA).</p>	<p>SANBI: A WWF-funded project, implemented by the Centre for Environmental Rights, is underway to explore appropriate legal mechanisms for protecting the water resources in SWSAs. Funding to the value of R400,000 has been secured through the GEF-funded project on biodiversity and land use, implemented by SANBI, to do further work on supporting improved protection of SWSAs in the four district municipalities covered by the project (Ehlanzeni, uMgungundlovu, Amathole and Cape Winelands). This project runs from 2015-2020.</p> <p>DEA: Strategic Water Source Areas have been identified, they contribute 50% of the regions MAR and occupy 8% of the land area, there is a map available.</p>

Strategic action 3: Strategic investment in the maintenance and rehabilitation of water ecosystems

Activity	Target	Progress for quarter
3.1 Revise Water Pricing to provide for allocation of funds towards maintenance and rehabilitation of key identified water ecosystems	Sufficient financial investment, through the Water Pricing Strategy and the waste discharge charge system allocated towards the maintenance and rehabilitation of key identified water ecosystems.	DWS: No funding has been reserved from the Water Pricing Strategy towards the rehabilitation and maintenance of the water ecosystems, the CMA's have their own funds for rehabilitation.
	Financial investment through penalties, establishments of environmental levy. Investigation of super funding model used by EPA in USA.	DWS: There is no financial investment done in SA using the super funding model used by EPA.

Strategic action 4: Maintain Freshwater Ecosystem

Priority areas in good condition

Activity	Target	Progress for quarter
<p>4.1 Consider all Freshwater Ecosystem Priority Areas, in the determination and implementation of Resource Directed Measures.</p>	<p>Number of river systems with determined resource quality objectives (DWS PPI 30)</p>	<p>Vaal, Olifants and Olifants Doorn. Berg, Breede-Gouritz, Crocodile West (Marico), Mokolo, Matlaba, Letaba, Inkomati, Mzimvubu and Mvoti-Umzimkulu.</p>

Strategic action 4: Maintain Freshwater Ecosystem Priority areas in good condition

Activity	Target	Progress for quarter
<p>4.2 In conjunction with DEA and its provincial counterparts, expand the protected area network to incorporate FEPAs where possible and appropriate. This includes protection through biodiversity stewardship programmes</p>	<p>The NPAES (National Protected Areas Expansion Strategy) incorporates FEPA (Freshwater Ecosystem Priority Areas) targets</p>	<p>SANBI: DEA has initiated a process to identify biodiversity areas which have very little or no protection against mining activities that would significantly be impacted by mining activities. This initiative is aimed at addressing the current gaps in legislation to ensure that key biodiversity areas sensitive to mining are afforded effective protection to achieve long-term sustainable development in South Africa. Overlaps between these key biodiversity areas and SWSAs will be examined in order to ensure water resources in these areas can also be safeguarded</p>

Strategic action 5: Protect riparian and wetland buffers and critical groundwater recharge areas

Activity	Target	Progress for quarter
5.1 Ensure Groundwater Strategy (2010) updated to provide for actions for identifying and recognising buffers and critical groundwater recharge areas	<p>Updated groundwater strategy for implementation</p> <p>Percentage completion of the groundwater feasibility plan for Malmani Dolomites (Escarpment) within the Olifants River Water Supply System</p>	DWS: The groundwater strategy has been updated and a draft is available.
5.3 Establish ground water protection zone.	Upper Vaal Lower Vaal	<p>Upper Vaal catchment: Draft Field Survey report submitted for comments</p> <p>Lower Orange WMA: Resource Unit report submitted for comments</p>

Strategic action 5: Protect riparian and wetland buffers and critical groundwater recharge areas

Activity	Target	Progress for quarter
<p>5.4 Together with DEA counterparts, prevent further loss of natural land cover in the buffer areas</p>	<p>A revised framework for delineating riparian and wetland buffers is in place. Standard method in the licensing process</p>	<p>The frameworks include</p> <ul style="list-style-type: none"> • Guidelines on delineation of wetlands and riparian areas (Used by DWS and referenced in the GA) • Wetland buffer guideline • Wetland offset guideline <p>SANBI: There is a preliminary guideline for the determination of buffer zones for rivers, wetlands and estuaries as a way to reduce environmental impact on aquatic resources that was published in September 2014 by the WRC.</p>

Strategic action 6: Rehabilitate strategic water ecosystems to support water quantity and water quality

Activity	Target	Progress for quarter
<p>6.1 Identify priority degraded water ecosystems, the rehabilitation necessary to achieve Resource Quality Objectives, and identify appropriate funding and implementation mechanisms for rehabilitating these sites</p>	<p>The priority rehabilitation needs of water ecosystems are identified, and options for investing in the rehabilitation of these ecosystems are in place to improve the sustainability and performance of key water-related ecological infrastructure.</p>	<p>SANBI: SANBI and UKZN completed a Green Fund project in November 2015 that used land cover mapping and hydrological and economic modelling to identify key water-related ecological infrastructure in the uMngeni catchment. Rehabilitation and protection interventions were also identified, together with quantification of the costs and water resource benefits of these interventions. This approach will be applied elsewhere in the country in future.</p> <p>Breede Gouritz CMA: The CMA has been running a project to remove riparian vegetation along the Breede River from 2012 till present.</p> <p>Berg Olifants PCMA: The Plankenbrug River has been identified for rehabilitation. The rehabilitation will be through the Green Filter programme. The inauguration of the filter was held in March 2016</p>

Strategic action 6: Rehabilitate strategic water ecosystems to support water quantity and water quality

Activity	Target	Progress for quarter
<p>6.2 Engage with the Natural Resource Management programmes of DEA and other relevant initiatives to influence prioritisation of sites for rehabilitation</p>	<p>There is improved alignment between sites rehabilitated through existing rehabilitation programmes and priority sites for water resource management.</p>	<p>SANBI: Spatial frameworks for evaluating future investments through the Land User Incentive of the DEA Natural Resource Management Programmes (NRM) were updated in 2015 to include criteria covering water quality, wetland condition, water flow demand and SWSAs. These criteria influenced the allocation of NRM budgets to ensure priority areas received preference.</p>

Strategic action 7: Monitor ecological health to inform management

Activity	Target	Progress for quarter
7.1 Monitoring programmes (indicators, sites and frequency) using experienced inter-departmental / agency teams at the scale of WMAs.	% completion of the review of the existing water monitoring networks (DWS APP: PPI 31)	DWS: The project schedule is July 2015- April 2016. 50% of the project was completed in March 2016.
7.2 Packaging and communicating the resulting information on the state and trends in, ecosystem health (see Chapter 13).	SANBI National Biodiversity Assessment (every 5 years) National River Ecosystem Monitoring Programme and Estuary Monitoring Programme	DWS compiles the State of Water report annually. SANBI: The next SANBI National Biodiversity Assessment (NBA) commenced in 2015. The report will be published in 2018.

Strategic action 7: Monitor ecological health to inform management

Activity	Target	Progress for quarter
<p>7.3 Establish and maintain National Aquatic Ecosystem Health Monitoring Programme consisting of the following:</p> <ul style="list-style-type: none"> • Rivers • Wetlands • Estuaries 	<p>Implementation initiated: Number of rivers where River Eco-status Monitoring Programme is implemented (DWS APP 63)</p>	<p>Rivers (DWS): Ninety six (96) rivers were monitored by regions by February 2016.</p> <p>Wetlands (DWS): The design of the wetlands monitoring programme was finalised in 2015, it is a WRC funded project. The testing of the monitoring programme has been identified as the next step. The programme will be operational in the next two or three years.</p> <p>Estuaries (DWS): Twenty eight (28) estuaries are monitored with expansion of another 6 being planned in the 2016/17 financial year.</p>

Strategic action 7: Monitor ecological health to inform management

Activity	Target	Progress for quarter
7.4 Provide national leadership in monitoring and reporting on water ecosystem health	Outcome 10 reporting.	DWS: A draft annual State of Water report has been compiled.

Strategic action 8: Minimisation of pollution from wastewater treatment works

Activity	Target	Progress for quarter
<p>8.1 Minimisation of the discharge of raw sewage into water resources</p>	<p>963 systems assessed by 2017/18 for compliance with effluent standards (DWS APP 56)</p> <p>Upgrading of sewage works</p> <p>Water recycling mechanisms</p>	<p>Wastewater collector systems (DWS): No waste water collector systems have been assessed this financial year.</p> <p>Water recycling mechanisms (DWS): Two Beaufort West WWTW currently treat wastewater at their works for potable use. There is also a recycling facility in EThekweni Metro that is in partnership with Veolia Water, the water produced is recycled for industrial use/ application.</p>
<p>8.2 Ensure implementation of wastewater risk abatement plans.</p> <p>Ensure Green Drop certification, across all municipal and private wastewater treatment works</p>	<p>963 systems assessed by 2017/18 for compliance with effluent standards (DWS APP 56)</p> <p>Green Drop auditing</p>	<p>Green Drop auditing (DWS): A total of one Thousand and one (1001) WWTWs (966 municipal WWTW and 20 private WWTW) were assessed by March 2016, they all have a Green Drop compliance which is below 80%.</p>

Strategic action 9: Establishing commitment to sustainable water resource management

Activity	Target	Progress for quarter
<p>9.1 Stakeholder awareness programmes developed; and implemented</p>	<p>Water valuation integrated into water resource decision making by ensuring water resource protection gains acceptance among all stakeholders involved.</p>	<p>Water Use Efficiency, Education and Awareness have done the following projects for education and awareness</p> <ul style="list-style-type: none"> • South African Youth Water Prize • Awareness campaigns (formerly called Blue Bus Campaign) in domestic/ local government sector • Awareness campaign in Agricultural sector • Drop a block Campaign (this is lead by Communication but supported by WUE)



Thank you