



## water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

### ANNEXURE A: RESPONSES TO FEDERATION OF A SUSTAINABLE ENVIRONMENT

FOCUS AREA	IMATTERS RAISED BY FSE	DEPARTMENTAL RESPONSE
<b>1. WITH REFERENCE TO THE CURRENT TREATMENT OF AMD</b>	1.1 What are the current ingress control interventions?	<ul style="list-style-type: none"> <li>The recommendations by the Team of Experts to the Inter-Ministerial Committee on AMD in 2010 highlighted that the Department of Mineral Resources through its research arm, Council for Geoscience would investigate measures to mitigate and manage the ingress into mine voids. A lot of research and studies are being conducted.</li> </ul>
	1.2 What is the status of the comprehensive recalibration of the salinity and hydrology models for the Vaal Barrage?	<ul style="list-style-type: none"> <li>The Department is in the process of finalising Terms of Reference for the appointment of a Professional Service Provider to do the required studies.</li> </ul>
	1.3 Which new and innovative treatment solutions for AMD have been approved by the DWS?	<ul style="list-style-type: none"> <li>The Department of Water and Sanitation is investigating and keen to explore the Acid Mine Drainage Circular Economy (AMD CE). The AMD CE look to achieve (i) Recovery of water; (ii) Recovery of Metals; (iii) Recovery of Sulphuric Acid; and (iv) AMD sludge dewatering for the benefits of cement and agricultural sector. The AMD CE addresses key government objectives: contribution to our GDP and creation of employment.</li> </ul>

	<p>1.4 What is the cost to the domestic sector for the combating of the high salinity as a result of the short-term treatment of AMD?</p>	<ul style="list-style-type: none"> <li>The salinity is being monitored at the Vaal Barrage and is still within the 600 mg/l limit set. Should salinity be over the set limit, the request will be made for the Vaal Dam to release some water for dilution to reduce the impact on the domestic sector. The exact costs for combating high salinity on the domestic sector will be determined in future.</li> </ul>
	<p>1.5 What is the progress in the DWS' target of the utilisation of treated mine effluent and other sewage works in order to reduce the risks within the IVRS</p>	<ul style="list-style-type: none"> <li>The Department of Water and Sanitation is investigating and keen to explore the Acid Mine Drainage Circular Economy (AMD CE). The AMD CE seeks to achieve (i) Recovery of water; (ii) Recovery of Metals; (iii) Recovery of Sulphuric Acid; and (iv) AMD sludge dewatering for the benefits of cement and agricultural sector. The AMD CE addresses key government objectives: contribution to our GDP and creation of employment</li> </ul>
<p><b>2. WITH REFERENCE TO THE RECONCILIATION STRATEGY FOR THE INTEGRATED VAAL RIVER SYSTEM:</b></p>	<p>2.1 Will the DWS have the resources and be in the position to timeously eradicate unlawful water use in order to achieve water security and to reconcile the demand with the supply in the Integrated Vaal River System?</p>	<ul style="list-style-type: none"> <li>DWS has identified the eradication of unlawful water use, and has a compliance monitoring and enforcement section that is putting in place plans to run with the process</li> <li>In provinces such as Northern Cape, and Gauteng and Free State, areas have been identified for attention</li> </ul>
	<p>2.2 What is the progress in the DWS' target of the utilisation of treated mine effluent and other sewage works in order to reduce the risks within the IVRS</p>	<ul style="list-style-type: none"> <li>DWS has implemented the AMD plants that treat water</li> </ul>
	<p>2.3 What is the progress in the City of Tshwane's reuse plans?</p>	<ul style="list-style-type: none"> <li>Tshwane's reuse program is behind schedule. More information can be obtained from Tshwane</li> </ul>
	<p>2.4 What progress has been made in water conservation and water demand management?</p>	<ul style="list-style-type: none"> <li>The WC/WDM has seen municipalities regressing or static as per the WC/WDM report of the IVRS at the steering committee. Additional work to be done to address the concerns;</li> </ul>

		<ul style="list-style-type: none"> <li>The status has been raised with the municipalities, and efforts will continue.</li> </ul>
	2.5 The Thukela Water Project: Since the Thukela hydrology is outdated and a revision is required (the last feasibility study was undertaken in 2001), what is the status of the revision?	<ul style="list-style-type: none"> <li>Work is on-going to update the hydrology.</li> <li>Procurement processes being initiated to procure and put in place a team for undertaking the bridging study</li> </ul>
	2.6 The Strategy recommended an improvement on the maintenance of existing transfer infrastructure. Please advise what the progress is.	<ul style="list-style-type: none"> <li>Procurements and improvements on the various components being done to bring system into optimal operation</li> </ul>
	2.7 Has the delay in the LHWP Phase 2 and the Yield Replacement Dam in the Orange been addressed?	<ul style="list-style-type: none"> <li>It is being addressed</li> </ul>
<b>3. ACCORDING TO THE NW&amp;SMP'S FINDINGS AND ITS SUMMARY OF KEY ACTIONS, RESPONSIBILITIES AND COMPLETION DATES, WE RESPECTFULLY REQUEST THE STATUS OF:</b>	3.1 The identification of alternative source of water and water that is not utilised (e.g. as mines are closing) by 2019.	<ul style="list-style-type: none"> <li>South Africa continues to identify all possible sources of water, including desalination of seawater and treatment of acid mine drainage;</li> <li>As mines are closing, where any water was being used and was lawfully authorised is considered as part of the resource for the catchment</li> <li>The duty of care for the remaining facilities, falls on the owners as part of the mine closure plan approved by department responsible for mining matters.</li> </ul>
	3.2 The development and implementation of municipality bylaws to protect water quality by 2020.	<ul style="list-style-type: none"> <li>Most municipalities that have by laws in place face problems in implementation. In particular some by laws are outdated and have not been revised accordingly. Some by laws do not even address water pollution. As opposed to metros, small municipalities lack the capacity to monitor water quality continuously. The Green Drop Programme assists improvement of bylaws within municipalities.</li> </ul>

	<p>3.3 The identification and prosecution of big polluters across the county (including municipalities), with a national communication campaign to accompany the action by 2020.</p>	<ul style="list-style-type: none"> <li>• The Department has recorded and investigated four hundred and twenty (420) cases of pollution since April 2018 to 2020. Forty six percent (46%) of these cases were found to be in Local Government, followed by Agriculture cases that are nineteen percent (19%), industries at fifteen percent (15%) and mines at thirteen percent (13%). The Department instituted administrative enforcement, criminal and civil actions against suspected polluters of water resources wherein two hundred and thirty-nine (239) administrative notices and directives were issued to polluters to remedy the effects of pollution. Eleven (11) criminal charges were laid against polluters and two (2) court orders were obtained and issued to compel polluters to remedy the effects of pollution as prescribed in Section 19 &amp; 20 of the National Water Act. Seven (7) polluters undertook remedial measures to curb effects pollution before enforcement action could be taken. One (1) polluter pleaded guilty to the charges laid following NPA's decision to prosecute.</li> <li>• The Department has recorded and investigated two hundred and eighteen (218) cases of pollution since January 2021 to date. Fifty-one (51%) of these cases were found to be in Local Government, followed by Industry cases that are twenty percent (20%), Mines at eleven percent (11%) and Agriculture at nine (13%). The Department instituted administrative enforcement, criminal and civil actions against suspected polluters of water resources wherein ninety-five (95) administrative notices and directives were issued to polluters to remedy the effects of pollution. Six (6) criminal charges were laid against polluters and two (2) court interdict applications has been lodged to compel polluters to remedy the effects of pollution as prescribed in Section 19 &amp; 20 of the National Water Act. Eleven (11) polluters undertook</li> </ul>
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		remedial measures to curb effects pollution before enforcement action could be taken. One (1) polluter has fully complied with the issued administrative action.
	3.4 How many prosecutions were instituted by the DWS in collaboration with the NPA and SAPS in terms of systemic non-compliance with Directives by municipalities, mines and industries?	<ul style="list-style-type: none"> <li>• Since 2018 to 2020, eleven (11) criminal cases were registered at SAPS against polluters that were “unlawfully and intentionally or negligently commit any act or omission which pollutes or is likely to pollute a water resource” as prescribed under section 151 (i) of the National Water Act. One (1) polluter pleaded guilty to the charges laid following NPA’s decision to prosecute.</li> <li>• Since 2021 to date, Six (6) criminal cases were registered at SAPS against polluters that were “unlawfully and intentionally or negligently commit any act or omission which pollutes or is likely to pollute a water resource” as prescribed under section 151 (i) of the National Water Act. SAPS through the Department’s support, referred five (5) case dockets emanating from previous investigations to NPA for prosecution.</li> </ul>
	3.5 The determination of the in-stream resource water quality objectives (RWQOs) based on the SA Water Quality Guidelines in support of RQOs by 2020.	<ul style="list-style-type: none"> <li>• On-going activities include Water Resource Classes, Reserve and RQOs Determination for Thukhela and, Keiskamma and Fish to Tsitsikamma, Usuthu to Mhlathuze, Upper Orange Reserve</li> <li>• Implementation of RQOs is on-going in many other catchments.</li> </ul>

	<p>3.6 The declaration of strategic water source areas and critical groundwater recharge areas and aquatic ecosystems recognised as threatened or sensitive as protected areas by 2021.</p>	<ul style="list-style-type: none"> <li>• This a competence for Departments responsible for environment, water, and agriculture.</li> <li>• It is an ongoing activity, with consultations across various government Departments and stakeholders to allocate responsibilities, allocate budgets were required and invoke NEMA and any other subsidiary environmental legislation. The maps of the strategic water resource areas are being improved upon;</li> <li>• Various aquifers have been mapped, and management plans continue to be developed for them, including transboundary aquifers</li> </ul>
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	<p>3.7 The review and promulgation of aggressive restrictions within the legislation to restore and protect ecological infrastructure by 2020.</p>	<ul style="list-style-type: none"> <li>• There are many pillars of ecological infrastructure including prevention of soil erosion, alien invasive species, prevention of activities in sensitive areas like wetlands, and discharge of effluent from land-based sources into the coastal environment.</li> <li>• Erosion has been a topic within legislation from the 1930's till today in South Africa. Relevant legislation:</li> <li>• Conservation of Agricultural <ul style="list-style-type: none"> <li>• Resources Act No 43 of</li> <li>• 1983</li> </ul> </li> <li>• Environmental <ul style="list-style-type: none"> <li>• Conservation Act No 73 of</li> <li>• 1989</li> </ul> </li> <li>• National Forestry Act No 84 <ul style="list-style-type: none"> <li>• of 1998</li> </ul> </li> <li>• National Environmental <ul style="list-style-type: none"> <li>• Management Act No 107 of <ul style="list-style-type: none"> <li>▪ 1998</li> </ul> </li> </ul> </li> <li>• Environmental Best Practice Specifications: Construction Integrated Environmental Management in Sub-Series No. IEMS 1.6. 3rd.</li> <li>• National Guideline for the Discharge of Effluent from Land-based Sources into the Coastal Environment</li> <li>• SANBI's Invasive Species Programme, formerly Early Detection and Rapid Response programme, (funded by Working for Water programme, Natural Resources Management branch – DEFF) was formed to control and manage emerging invasive alien plants in South Africa.</li> <li>• The Biodiversity Act 10 of 2004, states that landowners are under legal obligation to control invasive alien plants occurring on their properties.</li> </ul>
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	3.8 The securing of funds for the restoration and ongoing maintenance of ecological infrastructure annually.	<ul style="list-style-type: none"> <li>• As above</li> </ul>
	3.9 The establishment of a Municipal Intervention Unit for Water and Sanitation in DWS, staffed with highly competent experts to drive a national programme of intervention at the municipal level by 2022.	<ul style="list-style-type: none"> <li>• An entire Chief Directorate and Directorates at Provincial level are in place to assist municipalities</li> </ul>
	3.10 The establishment of financially sustainable CMAs across the country, and the transferral of staff and budget and delegated functions by 2020. Does the DWS have the capacity to establish the Vaal/Orange CMA and the Limpopo/Olifants CMA, which covers diverse catchment management areas and different challenges?	<ul style="list-style-type: none"> <li>• On-going, with consultations in progress.</li> <li>• The DWS has the capacity to establish all required institutions at all levels across the spatial variabilities</li> </ul>
	3.11 The establishment of a business case for streamlined institutional arrangements in the water and sanitation sector by 2020.	<ul style="list-style-type: none"> <li>• The Bill for the National Water Resource Infrastructure Agency is in progress</li> <li>• Review of Water Boards under discussion</li> </ul>
<b>4 ACID MINE DRAINAGE</b>	4.1 What is the status of the 2017 Draft Mine Water Management Policy	<ul style="list-style-type: none"> <li>• Draft Mine Water Management Policy was presented to the EISID Cluster – and has been routed to Cabinet for final approval.</li> </ul>

<p><b>5. SUSTAINABLE DEVELOPMENT GOALS</b></p>	<p>5.1 The actions the DWS has taken to address the gaps in the SDG6 Gap Report.</p>	<p>The following actions have been taken by DWS to address the SDG 6 gaps:</p> <ul style="list-style-type: none"> <li>▪ DWS established a structure for SDG 6 reporting called SDG 6 Working Group, with Chief Engineer - Water Services &amp; Local Water Management as the SDGWG Programme Coordinator.</li> <li>▪ The SDG 6 sub-goals are divided into Task Teams headed by directors (Task Team Leaders) in Head Office (e.g., TT 6.1, TT6.2 etc.), these also include task teams on Sector Support and Coordination, Water and Sanitation Sector Leadership Group, Research &amp; Innovation, SDG Interlinkage, and Climate Change.</li> <li>▪ The convenings for the reporting happen quarterly, where Task Team Leaders and regional offices (championed by Director: Water Resources Support) report on progress made in closing the gaps.</li> <li>▪ Quarterly meetings are also held with external water sector stakeholders (WWSLG) to report on the progress.</li> <li>▪ Action Plans were drafted by Task Team Leaders and regions to address the SDG 6 gaps – progress is reported at the quarterly meetings.</li> <li>▪ The SDG6 Website is updated regularly with latest Gap Reports and General information on progress. <b><a href="http://www.dws.gov.za/Projects/sdg/SDG6">www.dws.gov.za/Projects/sdg/SDG6</a></b></li> <li>▪ There is currently a WRC-funded project underway on developing a monitoring framework for SDGs 6 and 13 and the Paris agreement.</li> <li>▪ A pilot project was instituted to establish the link between water quality (SDG 6.3) and the 2030 agenda. The project aim is to further understand the linkages between SDG 6.3 and the other 16 SDGs, Identify the gaps and provide recommendations to ensure that the gaps are addressed, and progress is monitored and reported on through the appropriate structures.</li> </ul>
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<p><b>6. WITH REFERENCE TO THE REPORT BY THE PARLIAMENTARY PORTFOLIO COMMITTEE ON MINERAL RESOURCES TO THE NATIONAL ASSEMBLY (ANNOUNCEMENTS, TABLINGS AND COMMITTEE REPORTS NO 174—2018. NO 174—2018, FIFTH SESSION, PARLIAMENT. 22 NOVEMBER 2018. PAGES 39 – 52 &amp; CASE NO: 38365/2019),</b></p>	<p>6.1 Which actions has the DWS taken against the directors of the Mintails Group of Companies.</p>	<ul style="list-style-type: none"> <li>• A “Notice of intention to issue a Directive” in terms of Section 19 of the NWA was issued to Mintails Mining South Africa (Pty) Ltd on 10 November 2017 which afforded the mine an opportunity to make a representation within 10 (ten) working days from the date of receipt of the Notice. Following the receipt of the Notice an extension to make a written representation was requested by the mine on 19 December 2017, which the Department granted until 12 January 2018.</li> <li>• A representation from the mine was received dated 12 January 2018 and 05 July 2018 where the mine proposed measures to be implemented with time frames to mitigate/remediate the identified pollution activities at the mine.</li> <li>• The inspections conducted at the mine on 14 July 2021 and 04 May 2022 confirm that the proposed mitigation/remediation measures were not implemented and that operations at the mine have ceased due to the provincial liquidation process being followed by the mine subsidiary company. The provincial liquidation of the mine has resulted in pollution situation escalating due to the striping of mine assets. As a result, the Department is preparing directives to be issued to the mine.</li> </ul>
<p><b>7. DIRECTIVES ISSUED BY THE SAHRC TO THE DWS, PURSUANT TO ITS NATIONAL HEARING ON THE UNDERLYING SOCIO-</b></p>	<p>7.1 The measures the DWS has taken to account for the anticipated migration and population growth and other potential impacts on the availability of water resources such as drought.</p>	<ul style="list-style-type: none"> <li>• The Department undertakes all towns study for towns in order to among others estimate future water needs, water conservation and water demand management and future water needs taking into consideration projected population growth.</li> </ul>

<b>ECONOMIC CHALLENGES OF MINING AFFECTED COMMUNITIES IN SOUTH AFRICA, THE STATUS OF THE DWS'S COMPLIANCE WITH THE FOLLOWING DIRECTIVES:</b>	<p>7.2 The DWS's address of the problem of aging water infrastructure in mining-affected municipalities and collaboration with the DRDLR to translate guidelines regarding the provision of water on privately-owned land into policy.</p>	<ul style="list-style-type: none"> <li>This will be addressed by the Water Resource Infrastructure Agency when it is established.</li> </ul>
	<p>7.3 The DWS' review of Water Use Licences (WULs) to allow for rights assertion where terms and conditions of such WULs can reasonably be anticipated to adversely impact the rights of affected communities to access water.</p>	<ul style="list-style-type: none"> <li>This is not yet addressed by the DWS policies. The DWS deems it fit that the matter be addressed during the consultative process offered by the National Water Act during the water use licence application process.</li> </ul>
	<p>7.4 The DWS's meaningful consultation and information sharing in respect of applications for WULs, and audit and impact reports relating to WULs to increase transparency, and accountability in respect of the use of this scarce resource.</p>	<ul style="list-style-type: none"> <li>This aspect is considered important. The DWS has started with information sharing at the beginning of 2022 where it targeted HDIs, especially emerging farmers.</li> </ul>
	<p>7.5 The DWS's legal protection of strategic water resource areas and protected areas.</p>	<ul style="list-style-type: none"> <li>DWS supports legal protection of strategic water resources. Hence in National Water Resource Strategy the following is presented in page 67: "Urgent attention is needed to ensure that we conserve some representative natural</li> <li>examples of the different ecosystems that make up the natural heritage of this country. A</li> <li>strategic approach to freshwater ecosystem conservation and management is needed to</li> <li>focus efforts where they will have the greatest impact. To this end, Freshwater Ecosystem</li> <li>Priority Areas ("FEPAs") have been identified across South Africa, providing strategic spatial</li> </ul>

		<ul style="list-style-type: none"> <li>• priorities for conserving South Africa’s freshwater ecosystems and associated biodiversity.</li> <li>• These products represent the biodiversity sector’s input into water resource protection,</li> <li>• specifically targeting Resource-Directed Measures tools (Water Resource Classification,</li> <li>• Reserve Determination and setting and monitoring of Resource Quality Objectives).</li> </ul>
	7.6 The DWS’s consideration of the retrospective liability for historic environmental damage.	<ul style="list-style-type: none"> <li>• Section 19 of the National Water Act allows the Department to hold people liable for environmental damage (water pollution) in the present and in the past. In instances where land users are known, the Department takes the necessary action to implement the polluter pays principle. In case where land owners are not known (e.g. abandoned mines), the Department has taken responsibility and commissioned AMD treatment plants.</li> </ul>
	7.7 The DWS’s allocation of a budget for the rehabilitation of abandoned mines.	<ul style="list-style-type: none"> <li>• The Department of Mineral Resources is the custodian of mineral resources and the responsibility of mine rehabilitation falls within their mandate.</li> </ul>
	7.8 The DWS’s formal definition of AMD and Mine Water Management in legislation.	<ul style="list-style-type: none"> <li>• <b>These are definitions as per the Draft Mine Water Management Policy.</b></li> <li>• Acid Mine Drainage (AMD) – Is the seepage or flow of poor-quality water into ground or surface water systems. AMD occurs because of water in a mine void interacting with the mineralogy of the mine in the presence of air and microorganisms to form water that is typically characterised with a low pH and elevated concentrations of salt and metals.</li> <li>• Mine Water Management – The management of any surface and/ or groundwater which comes into contact with any part of a mine’s workings, operations or mine waste material and hence contaminated/ mine impacted water.</li> </ul>

	7.9 The DWS's address of the lack of an integrated inter-governmental approach.	<ul style="list-style-type: none"> <li>The one environmental system has been established to remedy this challenge. The respective departments are actively engaging on and addressing the integration challenges/issues through structures such as the Governmental Task Team. An interdepartmental forum in the form of the governmental task team (GTT) for mine closure and water management was established to strengthen all communication channels between government departments regarding mining in South Africa.</li> </ul>
<b>8. DIRECTIVES ISSUED BY THE SAHRC TO THE DWS PURSUANT TO ITS REPORT ON THE SEWAGE POLLUTION OF THE VAAL, THE STATUS OF:</b>	8.1 The development and implementation of policies to deal with the water crisis in South Africa and contamination of the Vaal River.	<ul style="list-style-type: none"> <li>Policies are in place</li> </ul>
	8.2 Officials in non-compliance with legislation to be dismissed.	<ul style="list-style-type: none"> <li>This is a labour relation matter that the Department is addressing.</li> </ul>
	8.3 Corruption to be referred to the Public Protector and SAPS.	<ul style="list-style-type: none"> <li>On 11 May 2022, the Department issued a media statement on this matter as follows:  The Minister has requested to present to the Portfolio Committee on disciplinary cases within the Department. This request follows untruthful articles which have created the impression that the Minister and the Department are covering up corruption. The Department will in detail, present on current disciplinary cases, the nature of the misconduct as well as their results”</li> </ul>

<p><b>9. NATIONAL WATER ACT</b></p>	<p>9.1 What measures has the DWS put in place to implement Section 19 (4), (5), (6),(7) and (8) when a person/s fail to comply with a directive (to cease, modify or control any act or process causing pollution, to eliminate the source of the pollution and to remedy the effects of the pollution), to remedy the situation and to recover the costs from the person/s indirectly and directly responsible for the pollution?</p>	<ul style="list-style-type: none"> <li>• The DWS has identified the need to investigate this under the National Anti-Pollution Task Team.</li> </ul>
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