

SDG 6

2019 GAP / ACTIONS TO INFLUENCE NW&SMP / OTHER



SDG 6.3: WASTEWATER AND WATER QUALITY		VEHICLES OF CHANGE					
No.	GAP	ACTION ¹	NW&SMP Is it covered already?	NW&SMP – Can this be a new action?	OTHER (NWSRS, Legislation etc)	Comments	Estimated Budget
1	There is no surface- or ground-water quality data from National Water Quality Monitoring Programmes for 2018 and 2019.	Revitalise the existing National Water Quality Monitoring programmes to <i>at least</i> resemble the monitoring programme status as at 2016	Yes	-	NWSRS IWQM Strategy (WQM2020 ²)	<p>This is addressed in the NW&S MP³ under action Level 2: 1.5.2 Routinely monitor resource water quality (Action 1.5.3 in the updated Vol 3 for Water Quality)</p> <p>Level 3 Action: <u>Undertake routine national water quality monitoring, considering the recommendations of the Review of the South African Water Resource Monitoring Network Report.</u></p> <p>(Action 1.5.3 in the updated Vol 3 for Water Quality)</p>	<p>R7 316 000 will be required to revitalise the National WQ Monitoring Programmes for priority sites</p> <p>Ideal scenario – fully functioning programmes: R14 000 000 / annum (as per NW&S MP costs)</p> <p>R28 000 000/annum (as per SDG estimation – costed at R3000 per sample, per month for priority NCMP sites for all WQ Variables)</p>

¹ These actions are equivalent to a “Level 3 and/or 4” action under the NW&S MP

² WQM 2020 refers to the DWS WQ Drive to tackle deteriorating WQ in RSA, consisting of a high level Anti-Pollution Task Team and the DWS WQ Strategy Steering Committee

³ The Version of the MP referred to here is V4.8 of 2018

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2.	Lack of sufficient national coverage of Water Quality Monitoring sites for ground and surface water.	Through a phased Implementation process: expand and realign the National WQ Monitoring programme in line with the study “Review, evaluation and Optimisation of the National Water Resource Monitoring Network” (For Groundwater to cater for the SDGs, this consists of expanding the monitoring to cover all the Hydrogeological Regions (Vegter, 2001) – 4 of which do not have any active monitoring boreholes).	Yes	-	NWSRS IWQM Strategy (WQM2020 ⁴)	This is addressed in the NW&S MP ⁱ under action Level 2: 1.5.2 Routinely monitor resource water quality (Action 1.5.3 in the updated Vol 3 for Water Quality) Level 3 Action: <u>Undertake routine national water quality monitoring, considering the recommendations of the Review of the South African Water Resource Monitoring Network Report</u>	R600 000 for 2020 (Cost of 6 new Boreholes for monitoring water quality) R859 486 120 is the full cost of implementing the optimised networks

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3.	<p>DWS cannot readily report on compliance to RQOs for water quality.</p> <p>This data is not yet collected, stored and easily accessed for those WMAs that have RQOs</p>	<p>Monitor and report on compliance to the WQ RQOs</p> <ol style="list-style-type: none"> 1. Develop methodology for compliance reporting 2. Align Monitoring programmes to monitor WQ RQOs 3. Monitor and Report on Compliance to RQOs 	Yes	-	NWSRS IWQM Strategy (WQM2020)	<p>This is addressed in the NW&S MP under the following Actions:</p> <p>Level 2 Action: 1.5.1</p> <p>Level 3 Action: Support RQOs in specified catchments with regard to integrated water quality management</p> <p>Level 2 Action: 1.5.2</p> <p>Level 3 Action: 1.5.2 Realign/ establish regional water quality monitoring programmes in cooperation with all relevant role-players and undertake routine regional monitoring</p> <p>(Action 1.5.6 in the updated Vol 3 for Water Quality)</p> <p>Method and templates for reporting on Compliance to RQOs can be developed in-house.</p> <p>Alignment of monitoring programmes with RQOs can also be undertaken through an in house assessment.</p> <p>Monitoring</p> <p>Costs/implications will depend on the number of “new” monitoring sites needed.</p>	<p>R20 000 000 over 3 years (as per NW&S MP costs)</p> <p>R4 800 000 (As at Nov 2018 there are 451 WQ RQO sites for all water resource types. Of this 327 Sites are for Rivers and Dams.</p> <p>Cost for sample collection and analysis is estimated at R3600 per sample per site, with the assumption of a minimum of 4 samples per annum and the assumption that other monitoring programmes do not cover the RQO sites)</p>

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3	There are large data gaps with regards to the quantity and quality of effluent discharged by Municipalities. Many municipalities do not have flow gauging stations or are monitoring the quality of outflows. The last comprehensive assessment was undertaken in 2012/13.	Revitalisation of the Green drop Assessments. - Comprehensive (not just partial) assessments are necessary - volumes that are discharged must be included in the GDAs.	Yes	-	NWSRS IWQM Strategy (WQM2020 ⁵)	This is addressed in the NW&S MP under: Level 2 Action: <u>1.4.1 Revitalise the Green, Blue and No Drop programmes and publish results and revise and establish norms and standards.</u> (Action 1.5.12, level 3: - Develop and implement an inventive based programme for WQ - in the updated Vol 3 for Water Quality)	R29 000 000 over 3 years (as per NW&S MP costs) R32 000 000 over 4 years (SDG Gaps report estimated costs)
4	There is a lack of legislative requirements compelling companies to load their waste water discharge data.	Develop and Gazette regulations to compel water users to register and upload water discharge water quality data on iRIS	No	Yes	NWSRS IWQM Strategy (WQM 2020) Data Management Strategy for RSA	Compliance Monitoring Data produced by water users who generate and discharge/dispose of waste or water containing waste is submitted currently to the DWS in hard copy format. A system is now in place to capture discharge data. Regulations are now required to compel existing users to load their data onto iRIS This action is not in the current version of the NW&S MP. It could be included under Action 1.4.10 (This is Action 1.5.8, level 3: -in the updated Vol 3 for Water Quality)	R200 000 in 2020 (cost of gazetting)

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5	Data management systems for water quality are not integrated , including WARMS/eWULAAS, WMS, NCIMS and iRIS. (data from one system does not automatically correlate to data from another system. This hampers routine reporting on the no.of WWTWs that are authorised)	Adapting current information management systems (WARMS; IRIS; NCIMS; WMS) to obtain data from the various systems in order to allow reporting on SDG Target 6.3	No	yes	NWSRS IWQMS Data Management Strategy for RSA	The current version of the NW&S MP (Action 1.5.3) refers to systems for Resource Water Quality. An action that refers to source control data systems is needed. (This is Action 1.5.11 in the updated Vol 3 for Water Quality: level 3: “Government to ensure the harmonisation of data and information systems pertaining to (water quality) source control”)	R9 000 000 (R5 mill development costs R3 million per annum maintenance costs for three year contract)
6	DWS do not know where all the water users with a pollution potential (both lawful and unlawful) are situated and how much they discharge and of what quality	Develop a method and undertake Validation and Verification assessment for all 9 WMAs of all water users with a pollution potential	Partially	Yes	IWQM Strategy Implementation (WQM2020 ⁶)	This is alluded to in the current version of the NW&S MP in Action 1.4.5 “Replace all Existing Lawful Use (ELU) with licences with enforceable water use conditions”, but its not clear if this includes a deliverable to undertake V&V for Water Quality (This is Action 1.5.12 in the updated Vol 3 for Water Quality: level 3: “Validate and verify (V&V) registered water use with a direct water quality impact”)	R261 000 000 (Cost of a V&V Study X 9 for each CMA. Includes water quantity and quantity components. Estimated at R29 Million per Catchment)

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Note! Through the SDG process, in addition to the above key requirements to enable reporting on SDG 6.3, a number of amendments have been made to the water quality components in Vol 3 (V4.8) of the NW&S MP to better allow for alignment between the SDGs and Master Plan and to capture the changes that have been made since Vol 3 (v4.8) was developed (in 2018). It is requested that these changes be considered by the NW&S MP project team.