

Issues and Response Register (IRR) for the Development of the Eutrophication Management Strategy for South Africa

Compiled by: Directorate Sources Directed Studies

This Issues and Response Register (IRR) captures the matters and issues raised by stakeholders during the process of developing the Eutrophication Management Strategy for South Africa (EMSSA). The purpose of this report is to ensure that all the concerns and comments raised by stakeholders are noted, considered, and addressed comprehensively.

All written and oral submissions received from stakeholders have been summarised in this report.

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
Project Planning Meeting No. 1, held on 30 April 2019			
1.	Mr Yakeen Atwaru	The first attempt for the project to source a Professional Services Providers (PSP) to assist with the project was rejected by Top Management in February 2019. The second attempt, with the beefing up of the motivation that the Directorate: Sources Directed Control (D: SDC) only has the Director (Ms Tovhowani Nyamande) as the only human capacity existing in the unit culminated in yet another disapproval from the DDG: PME in March 2019.	<i>The project should be done in-house with the assistance of the existing internal capacity</i>
2.	Dr Sebastian Jooste	<ul style="list-style-type: none"> - Do we have modelling experts internally? - Suggested that the project should be listed in the Water Research Commission (WRC) project list. 	<i>Noted</i>
3.	Mr Pieter Viljoen	Suggested the inclusion of Rehabilitation and Remediation under deliverables as lessons learned from Hartbeespoort Metsi-a-Me dam project	<i>Agreed</i>
4.	Mr Yakeen Atwaru	There is a need to include the WRC project EONEMP in the project	<i>Noted</i>
5.	Dr Mike Silberbauer	The Directorate: Resource Quality Information Services (D: RQIS) contributed to the surface monitoring and sample analysis for the project and the need for continuous monitoring is important in order to calibrate the earth observation data	<i>Noted</i>
6.	Mr Elijah Mogakabe	<ul style="list-style-type: none"> - Is this meeting a Task Group or a planning meeting? - Only internal documents are referenced and no reference to external documents or researchers. - Recommendations such as removing phosphate from detergents have to be included. 	<p>Mr Yakeen Atwaru clarified the project's administrative platforms as consisting of Project Management Committee (PMC), Task Group, and Advisory Committee.</p> <p>Ms Tovhowani Nyamande clarified that Terms of Reference (ToR) include both internal and external documents and research in the text and references. Only DWS documents were used in the presentation slides in order to highlight the fact that the project will not re-invent the wheel or duplicate the work that is already been done but to use it as baseline information.</p>
7.	Mr Pieter Viljoen	Many documents and expertise are available on the matter, e.g. the WRC documents and work done by the CSIR through experts such as Prof Paul Oberholster. The staff from the RQIS has people that understand the research and have access to data and interpretation thereof. The Directorate	Ms Tovhowani Nyamande responded that appointment letters (to be approved by the DDG: PME) are being drafted in order to source assistance from other Branches, Chief Directorates and Directorates; in addition to all relevant stakeholders within

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		Resource Protection and Waste (D: RP&W) and the Directorate Compliance, Monitoring and Enforcement (D: CME) have expertise regarding water quality implementation and enforcement, Water Quality Planning also has experience in developing implementation strategies and plans. The project has to identify the existing human capacity first and see if relevant expertise is available.	<i>the entire water sector.</i>
		Enforcement regarding municipalities to comply with the 1.0 mg/l phosphate standard.	<i>Noted</i>
		The industries confirmed that phosphate is expensive and removing it from their products will, in any case, benefit them and therefore decided to remove it. Currently, the challenge is that there is no regulation in South Africa that enforces the removal of phosphate	<i>Noted</i>
8.	Dr Sebastian Jooste	Suggested checking if humans are not the main source of phosphates in the water bodies.	<i>Noted</i>
9.	Mr Geert Grobler	The Water Quality Dialogue platform he attended in August 2012; eutrophication came out as a priority. His solution of the strategy is to “ keep it simple ”. He further suggests that the strategy include the Compliance, Monitoring and Environment (CME) component, and link with the Master Plan and Sustainable Development Goals (SDGs).	<i>Ms Tovhowani Nyamande indicated that it is a good suggestion for shaping the Framework Document.</i>
10.	Dr Michael Silberbauer	Even large municipalities like the City of Tshwane have difficulty paying for upgrades to wastewater treatment works and do not comply with effluent standards.	<i>Noted and thanks for the comment</i>
11.	Mr Elijah Mogakabe	DWS is failing in its duty to protect and manage the water resources, as the custodian issuing authorizations, and therefore there is no enforcement. This project is an opportunity to reflect on what is missing and to come up with a new strategy.	<i>Noted and thanks for the comment</i>
12.	Mr Willie Mosefowa	Strategies produced by the Directorate: Water Resource Protection and Waste (D: WRP&W) were never implemented, as the time frames mentioned there were already in the past. Since the development of the Agricultural strategy and the catchment eutrophication guidelines, no timeframes were met as no implementation was done. The elapse of the indicated timeframes in the strategy calls for the review of the strategy (before it was even implemented). Instead of reviewing	<i>Ms Tovhowani Nyamande indicated that new developments such as water resources are now classified, Resource Quality Objectives (RQOs) are now set, the Master Plan (Phakisa project), and a need to comply with SDGs. In order to take all the Source Directed Measures (SDM) and Resource Directed Measures (RDM) in place into consideration, a National Eutrophication Strategy needs to be developed.</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		a strategy at a catchment level, a National Eutrophication Strategy is being developed.	
13.	Mr Mkhevu Mnisi	There will be a need to solicit assistance from external stakeholders.	<i>Agreed</i>
14.	Mr Geert Grobler	A strategy is more of a development of a framework before an Implementation Plan. His advice is to get stakeholders to establish an Implementation Team Committee. Another strategic goal should be finances – funds generated from Waste Discharge Charge System should be channelled to the benefit of the water resources. The CME component needs to be involved, the Green Drop Report needs to be published and there should be naming and shaming of the non-performing municipalities. He further suggests that the Eutrophication Strategy Project be part of the National Water Quality Management Forum (NWQM Forum).	Ms Tovhowani Nyamande responded that she is a member of the NWQM Forum and that the Eutrophication Strategy Project is already amongst the forum standard agenda items.
Project Planning Meeting No.2, held on the 19 August 2019			
15.	Ms Tovhowani Nyamande	The submission to appoint a PSP was rejected by the DDG: Planning & Information (P&I).	Ms Tovhowani Nyamande indicated that this project will be conducted in-house using the expertise and skills available within the Branch and Regional Offices.
		The 2021 milestones were regarded as being too far and the DDG recommended that they be moved to an earlier date.	<i>This may be difficult to implement because of being unsure of the skills available to assist with the project</i>
16.	Ms Phumza Dubula	How many people are needed to be part of the project?	Ms Tovhowani Nyamande highlighted that the second part of the presentation deals with the proposed names, roles, and responsibilities of the people who will be part of the strategy development. <i>Members to be part of this project will be sent letters of appointment so that they may include this project as part of their Performance Agreements.</i>
17.	Ms Mandy Reddy	There is a need to consider and include our developmental partners (strategic water sector partners) and also members of the civil society.	<i>So far only external stakeholders have been identified and the list will be updated as the project unfolds.</i>
18.	Mr Elijah Mogakabe	Is the end product of the project the implementation plan and if not, who is going to develop it?	Ms Tovhowani Nyamande indicated that this project is aimed at developing a strategy and the implementation plan will be a recommendation that regional offices will be expected to develop. In the end, the strategy will produce a 'know-how'

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>plan as a way forward.</i>
19.	Ms Phumza Dubula	<ul style="list-style-type: none"> - What do we want to produce in the end? - What is the Strategy we want to produce and by when? 	<i>Presentation made in the 1st project meeting to the task team members will be circulated to the members who are in the meeting (project planning meeting 2) for the first time, together with the ToR ad BID for clarity.</i>
20.	Ms Mandy Reddy	Somewhere during the course of the strategy development, we need to make space to meet with other stakeholders (<i>i.e.</i> Agriculture, Local Government, etc.).	<i>RP&W strategy will be sent to the Task Team Members to give them an idea of the kind of Strategy this project aims to achieve.</i>
21.	Mr Geert Grobler	There is a need to include the concept of cost-benefit analysis of the strategy.	
22.	Mr Tendamudzimu Rasikhanya	It needs to be clearly communicated on why the focus is on eutrophication over other water quality-related problems/challenges in the country. This should come out clearly in the situation assessment and gaps analysis report.	
23.	Mr Pieter Viljoen	The RP&W produced a good document in 2014 and we need to learn from it as it details timeframes and the implementation plan.	
24.	Mr Phidium Maluleka	There is work that is being done by the University of Venda on water quality monitoring which should be looked at, and such stakeholders should be considered in the development of the strategy.	
25.	Mr Mnisi Mkhevu	Eutrophication should be able to respond to the question of 'improving maintenance of WWTWs problems' because WWTWs are a major cause of eutrophication in the country.	
26.	Mr Jurgo van Wyk	We need to be practical by defining and describing the major causes of eutrophication and this will help us to develop a strategy that is relevant.	
<i>Project Steering Committee Meeting 1, held on 29 July 2020</i>			
27.	Ms Mariette Liefferink	It would be more appropriate to have more NGOs involved in the Project as PSC	<i>Ms Ndileka Mohapi thanked Ms Mariette Liefferink for the comment and indicated she will appreciate it if she could send a list of NGOs she might have. Ms Ndileka Mohapi further mentioned that there are areas that do not have Catchment Management Forum (CMFs) in place, which is the platform used by the Department to exchange information with the public, however, the Department has started the restructuring</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p>process which will also include the implementation of CMF strategies.</p> <p>Ms Tovhowani Nyamande concluded to say the Department has tried to reach out to everyone but the list of PSC (slide 11) is according to the response received. Some NGOs are included as PSPs, of which companies such as DHEC and IEMS will be amongst those.</p>
28.	Mr Matome Makwela	Is it possible to get someone from the Department to present the strategy (especially at the First Draft of the Strategy component) to members of the Minerals Council.	Ms Tovhowani Nyamande responded to say the presentations will be circulated and arrangements will be made to present the Strategy for the Minerals Council.
29.	Ms Mariette Liefferink	Will Municipalities be involved in this Strategy since they are the major contributors of high loads of nutrients?	Ms Ndileka Mohapi responded that the Department is struggling to get hold of Municipalities, however, we will try to engage them in different platforms.
30.	Prof Johann Tempelhoff	The information also needs to be passed on to the water forums in the river catchments and members of the water forums should also be introduced	Ms Tovhowani Nyamande stated that an invitation was sent to different stakeholders and also stressed out the issues and difficulties of getting hold of the CMA's representatives to participate in the Sector meetings.
31.	Ms Mariette Liefferink	<ul style="list-style-type: none"> - There will be a challenge on the enforcement of non-point source pollution control in informal settlements. - On lack of research (gap analysis): there is quite a number of work/research done on eutrophication in SA and I believe research is available, but the challenge is the implementation of the recommendations of the work that has been done. - On measures in place to manage eutrophication in SA (slide 18): green-blue drop reports have not been published since 2014 and are a major concern to the public. - When will the amalgamation between WSA and NWA be completed? - Is it realistic to say we will meet some of the SDG targets with current poor water conditions in our rivers in 2021? 	<p>Ms Tovhowani Nyamande noted the point of availability of research.</p> <p>Ms Ndileka Mohapi responded that the business of the day is to discuss the development of the National Eutrophication Strategy, not other processes of the Department, therefore, the platform might not be able to respond to questions that are not relevant to the development of the Strategy. She further mentioned that the issue around the strategy is that we are not talking about the implementation of the strategy but the timeline for finalizing (drafting) the Strategy. Therefore, the 2021 timeline that was referred to in the presentation was that of drafting a Strategy, not the implementation. The implementation process is going to run for a period of years and it is not going to be achieved by the end of 2021.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p>Mr Willie Mosefowa in response added that there is a plan in place for this financial year which for self-assessment where stakeholders will be assessing themselves and putting information into the system.</p> <p>Ms Ndileka Mohapi also mentioned that the project administration team will try to get the status of the blue-green drop from the regulation team responsible for the blue-green drop programmes. In conclusion, the Chairperson mentioned that we also have to acknowledge as citizens that we have a role to play in enforcement and that Government cannot do it alone.</p>
32.	Mr Matome Makwela	There should be a quantification of the contribution of each or some sectors towards the challenges of eutrophication because this will assist in the drafting of the implementation plan	Ms Tovhowani Nyamande responded that the idea of Putting Strategy into Practice component was put in place to close the gap between Eutrophication Strategy and the implementation plan which is expected to be at the catchment management level and this component will highlight sectors and contributors at the national scale before moving to the “who, what, how and when” of the implementation plan.
33.	Mr Wandile Nomqphu	There is a vast research done by the Water Research Commission (WRC) on Eutrophication. One of the projects completed by WRC a year or two ago on monitoring using Earth Observation or satellite monitoring integrated into the national eutrophication monitoring programme, we had hoped that it is the system that could be used on monitoring the eutrophication on the country wide-scale and the system has been improved. Thus, from the research point of view, a great deal has been done and we can still do a little bit more if there are some research gaps that need addressing	Mr Elijah Mogakabe mentioned that the Earth Observation National Eutrophication Monitoring Programme technology was developed but there were some challenges with further administration from the Department and the matter was elevated to top management because of the cost implication related to the technology. We have used the technology and we know that the type of information that can be generated from that system is very reliable and it has also assisted us in decision-making with regard to eutrophication.
34.	Ms Mariette Liefferink	There was a training presented to the DWS, that was put together by Dr Harding and his group, why was it not used to build capacity in the Department?	Ms Ndileka Mohapi responded that she will get Ms Tovhowani Nyamande and her team to follow up on that.
35.	Dr Bill Harding	I have been involved in four (including this one) attempts to develop eutrophication strategies over the past 30 years but this is the first that looks like it is going to run and come out somewhere. What came out from the previous attempts is that we knew where the problems were, but the	Ms Ndileka Mohapi responded that the team will follow up on this important and critical issue to ensure that there are structures in place to ensure implementation and proper follow up because our water resources are really under threat and we

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		challenge was the transfer of knowledge into implementation and to create meaningful interventions. There was a lack of understanding about eutrophication from the decision-makers, and then there were discussions with the Research Commission and IEMS group (International group of Limnologists) who put together a framework for the South Africa relevant eutrophication training package for the Department which was not only national relevant but also regional relevant. The package was presented to the then DWAF but there was no uptake for it.	<i>know that water quality is one of those pressing issues that are really topical of late and we can't seat down and fold our arms and think that issues are going to resolve themselves.</i>
36.	Mr Bradley Nethononda	It seems like there is still more on the policy level, there seems to be a lack of corporative government especially with local government and I believes that implementation also needs to cater for the local government especially the municipalities.	Ms Ndileka Mohapi noted the comment and mentioned that the Department is working hard on trying to get the local government to be part and parcel of these processes. She acknowledged that it is currently a challenge, but we will get there.
37.	Prof Johann Tempelhoff	<ul style="list-style-type: none"> - Enforcement measures need to be put in place, to focus especially on municipal WWTW - The reintroduction of the Blue and Green Drop Strategy, in order to be able to secure monitoring data across a broad spectrum of bulk water users and services authorities. 	<i>The Blue and Green Drop system has been revived by the Department, it is up and running.</i>
38.	Dr Jeff Thornton	<ul style="list-style-type: none"> - Conceptually water resources management can be viewed as an inverted pyramid with the broad top focusing planning to the catchment level and further to the impoundment level - Capacity is needed at all levels: regulatory and administrative. operational (technical, wastewater treatment, and water treatment), and stakeholder (individual landowners, businesses, etc.) This would involve universities, technical colleges, and citizen/business, groups 	Ms Melissa Lintnaar-Strauss responded that it is important to start with the regional offices and CMAs as the catchment Managers. CMAs are part of the Department; they are responsible for the implementation of the Departmental strategies
39.	Mr Jurgo van Wyk	<ul style="list-style-type: none"> - The National Strategy should ideally be complemented by water resource system and catchment scale planning to ensure the holistic, coherent and integrated roll-out of the requisite interventions at the catchment and system scale while operational regulatory actions continue as part of "business-as-usual" day-to-day activities. Suitable system and catchment scale planning to address eutrophication, as part of water resource planning, has generally been neglected and potentially constitutes a gap. Water resource planning, traditionally, focussed on salinity and need to be extended to fully consider nutrient loading 	<i>Noted. Comments will be considered when crafting the strategy</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<p>- SDG Indicator 6.3.1D reporting on the “Proportion of water containing waste lawfully discharged” should be viewed as to complement the Strategy. Information obtained through SDG Indicator 6.3.1D reporting, and also through other means, such as through the Green Drop System (now linked to the Integrated Regulatory Information System (IRIS), etc., provides valuable information that can be used to track strategy implementation success. SDG Target 6.3 additionally proposes Management Targets to the UN to measure performance against as part of the SDG programme. The Strategy should probably influence these Management Targets to ensure that one set of Management Targets are employed</p>	
<i>Email correspondence</i>			
40.	<p>Ms Mariette Liefferink <i>Receive 14 August 2020</i></p>	<p>The National Water and Sanitation Master Plan, 2018 called for the establishment of financially sustainable CMAs across the country and transfer of staff and budget and delegate functions including licensing of water use and monitoring and evaluation of water resources by 2020.</p> <p>At the time of writing, we are unaware of any progress in this regard. The development of the National Eutrophication Strategy (“the project”) is at risk to be aborted unless CMAs become functional.</p> <p>I thank you, on behalf of the FSE and myself sincerely for the Minutes. My comments were accurately recorded.</p> <p>With reference to the action assigned to the FSE in the Minutes, namely, to advise regarding NGOs, please see the subjoined box.</p> <p>With reference to Ms Ndileka Mohapi’s comments pertaining to CMFs, permit me please to report that at the recent CMF meetings, namely the Blesbokspruit-, Klipspruit- and Rietspruit CMF meetings (within the Upper Vaal CMA), in which the FSE participated, I, on behalf of the FSE, took the liberty to inform the members of the said CMFs of the Eutrophication Strategy and to supply the CMFs members with electronic copies of the Inception</p>	<p>Ms Eustathia Bofilatos responded that the department has opted to establish 6 consolidated CMAs, instead of 9 which were initially proposed. Many factors were considered (i.e. hydrological boundaries and financial viability), to improve efficiency and to reduce costs. However, the Department has decided to prioritize 3 CMAs for now (i.e. Vaal, Limpopo and Pongola). All this together with the reduction of WMAs will be gazetted and published in the NWRS – 3.</p> <p>Thus, the Department is in the process of appointing board members for these CMAs and it is expected to be finalized in December 2020.</p> <p>Mr Samkele Mnyango thanked Ms Liefferink for her prompt response and assured her that her comments will be taken into consideration.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<p>Report, the Issues and Response Register: Inception Report and Situation Assessment and Gap Analysis Report. Concerns were raised at these meetings that this information was not disseminated to DWS' officials at catchment level, and in particular the configuration of the existing 9 CMAs to a rationalised and consolidated set of 6 CMAs, as noted in the Issues and Response Register.</p> <p>She further attached the presentation by Sibanye-Stillwater (slide 4) in which it was explained that ammonium results in eutrophication. From Rand Water's instream quality water results the ammonia (kindly note it should read ammonium) the levels, in particular at Rietspruit@Sebokeng, are high, which correlates with the high e-coli counts of more than 9 million counts per 100 ml. In the light of the aforementioned, we once more wish to emphasise that the development of a eutrophication strategy, without addressing the dysfunctional WWTWs and raw sewage flowing into our rivers, will be a futile exercise.</p>	
Project Management Committee & Technical Task Team combined meeting, held 17 March 2021			
41.	Ms Thandi Mopai	Enquired whether there is a representative from the Compliance Monitoring part of the CME? She elaborated that her reason for the inquiry is that it is always assumed that Enforcement covers the entire CME which is not the case.	Ms Tovhowani Nyamande indicated that Mr Resenga Philemon Shibambo has been invited into all the committees and meetings, however, to date he has not been able to attend any. She further indicated that she has in the past tried to reach out to Ms Abashoni Nefale ; however, she was advised not to directly rope-in the colleagues but rather to move through DDG P&I and the relevant DDG.
42.	Mr Mogakabe Elijah	Conventional wastewater works are the ones mentioned; should the strategy be extended to include areas that have onsite sanitation in the informal settlements? The issue of onsite sanitation is not explicit from the slides.	<p>Ms Tovhowani Nyamande indicated that the point was raised earlier and Ms Lusanda Agbasi from sanitation provided information for infrastructure in informal settlements.</p> <p>Mr Jurgo van Wyk added that the diffuse component is included in the main document; it got lost in the slides due to summary effort to use pictures.</p>
Email correspondence			
43.	Ms Tovhowani	You will remember that the project D: SDS is coordinating started as the	Mr Sibononiso Ndlovu (Director: Policy) responded that as

COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
<p>Nyamande</p> <p>22 June 2021</p>	<p>“National Eutrophication Strategy” and now been revised to “Eutrophication Management Policy and Strategy for South Africa?”</p> <p>Initially (2019/20) when I had a discussion with you (D: Policy), the idea was to develop the National Eutrophication Strategy based on the existing IWQM Policy. You indicated that it acceptable to use the IWQM Policy as the Policy informing the Eutrophication Strategy, as long as is clearly indicated as such in the Strategy.</p> <p>Now the project took another turn, to develop a Eutrophication Policy and Strategy as one document that is meant to be at an operational level. Is that acceptable in terms of the processes to follow when developing a policy OR will that compel us to get the document gazetted for broad public comment?</p> <p>Please advise on the processes to be followed.</p>	<p><i>much as he was copied on the initial email, but he has to respond too.</i></p> <p><i>He indicated that Mr Tenda Rasikhanya is still on leave until mid-June so he will also need to provide him with better insight on this development.</i></p> <p><i>Mr Ndlovu’s understanding since 2019 when he joined Policy Unit remains that SDS is leading the process to develop a National Eutrophication Strategy which finds it’s tune from the existing approved water quality policies and further draws guidance from the Draft IWQM Policy. Hence, he then supported the previous request for his team to participate in the process but more importantly to provide a guiding framework for the proposed strategy to be aligned with policy prescripts. He further mentioned that he might have not been told that there was a decision to change the approach to now developing a policy instead of the strategy and in this case Mr Rasikhanya as delegated to represent the Policy Unit should provide clarity to that regard.</i></p> <p><i>The question is what are the underlining factors that resulted in taking a decision to develop a policy? What evidence that suggested the existing and including the Draft IWQM are falling short to provide cover for the proposed Eutrophication Strategy? Whilst addressing his question as a team, please be mindful of the fact that one of the intentions to develop Draft IWQM Policy was to curb overly regulated environment (in this case so many water quality management policies) and to consolidate existing approaches going forward. Lastly, it is now the mandate of the Policy Unit to mainstream a recently government-approved evidence-based policy development. Such an approach seeks to first check what are the existing and appropriate policy or regulatory instruments available for Departments to use in responding to challenges before choosing to develop new policies.</i></p> <p><i>Kindly take note that this is a clarity-seeking response for now. He will then relate my position on the matter at a later stage.</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
<i>Project Management Meeting 4, held on 23 June 2021</i>			
44.	Mr Tenda Rasikhanya	<p>We need to focus on the Strategy rather than breaking it down to Policy. Initially, we (Technical Task Team Members) recommended that the content of the Policy be rephrased to Strategic intent or strategic objective. Instead of formulating the new eutrophication policy, let's focus on the main/umbrella policy, Integrated Water Quality Management Policy (IWQMP) which calls for different actions including eutrophication. To avoid having many Policies let's rather have one policy and different Strategies that responds to the IWQMP"</p> <p>According to the Policy framework that has been recently adopted from DPME, the Policy part could fall under policy directive. Directives are formal instructions that must be executed by all affected policy implementers. A directive usually encapsulates instructions of a technical nature that do not require changes to higher level policies or to legislation. Other directives may reflect significant strategic or policy decisions. A policy directive communicates changes to the interpretation or application of policies and legislation. They can come in different forms, such as prescripts that interpret and clarify legislation regarding procedures, processes and practices that must be followed". Following our discussion and subsequent presentation and for sector correct interpretation, I propose "Eutrophication: Policy directives and strategy for implementers". To create seamless interpretation in the sector that we don't seem like we are over-regulating ourselves in terms of one thing to another.</p>	<p><i>Mr Jurgo van Wyk responded to Mr Tenda Rasikhanya and mentioned that he does not share the same sentiments with Mr Tenda Rasikhanya and that according to his understanding there are different levels of Policy for instance the IWQM Policy is at an operational level policy or supporting policy and that does not need to be taken through a gazetted exercise.</i></p> <p><i>Ms Tovhowani Nyamande concurred with Mr Tenda Rasikhanya's point of view by adding that when the National Eutrophication Strategy (NES) was started, the intention was to give effect to the IWQMP (objectives and actions indicated under eutrophication). The Policy Statements can still be included in Strategy document</i></p> <p><i>Comment noted with thanks.</i></p>
45.	Ms Mahadi Mofokeng	<p>The new and old objectives are confusing. It sounds like there are new things in the IWQMP. The Directorate: Policy needs to clarify.</p>	<p><i>Ms Tovhowani Nyamande, responded that we have IWQP&S in place and the principle is that we need to move from development of the policies to implementation of those policies. The point of departure is that we need to show that we have already started with the implementation of the IWQMP. There's always an outcry from external stakeholders that we are good at drafting policies but we are lacking behind with the implementation of those policies. I am, therefore, voting that</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>we move to implementation phase.</i>
46.	Ms Dephney Kabini	I am happy with the Strategy but my concern is on the revision of the Departmental structure and allocation of water resource functions on whether they fall under water use section or resource protection section. This is problematic because you would find that similar functions are seating with different components in different regions. But all in all, what was presented on the Strategy is implementable.	Ms Tovhowani Nyamande concurred with Ms Dephney Kabini on the standardization of components within Regional Offices and Head Office. We are also working in collaboration with our sister Directorate in RDM who are coordinating the Project called operationalization of the RDM in terms of the Reserves and RQOs.
47.	Ms Candice Mahlangu	It is very important that all our DWS provinces take ownership of this Strategy. It is part of stakeholder engagement and we find that policies and strategies become easier to implement with provincial and regional ownership. I hope and trust that all the provinces are represented in these meetings.	Mr Samkele Mnyango noted the comment and indicated that. <i>at the inception of the project, the Project Team requested regional representatives to be part of the project with the expectation that representatives ensure that stakeholders on the ground are aware of the project.</i>
Project Steering Committee Meeting 2, held on 27 July 2021			
48.	Ms Rachel Mpe	Can I share the Document with members of the Catchment Management Forum within the Crocodile West Marico Catchment for them to provide inputs	<i>Yes, the document can be shared with Members of the Forum for their inputs as well. However, the Department is planning to visit CMFs and capacitate them as part of the Capacity Building Programme.</i>
49.	Ms Mariette Lieferrink	How will the issue of monitoring data gaps be addressed in the Strategy?	Ms Tovhowani Nyamande responded that the Situation Assessment and Gap Analysis also identified monitoring data as one of the gaps. However, the Department has decided to move on with the available data in order to avoid procrastinating to do the implementation with the excuse of not having data. The Department is aware and working on it. Mr Yakeen Atwaru added that the department is currently in the process of undertaking workshops with Provincial Offices and CMAs on the State of readiness for Implementing RQOs ad Reserves at the Catchment level. The first 2 deliverables for this financial year (2022/23) are to implement RQOs in Usuthu-Inkomati and Berg Catchments.
50.	Ms Simone Lieferrink	We are aware initiatives being driven by the Department such as the implementation of the Green-drop which I hope will assist in improving matters. However, it goes beyond the issues we are experiencing with Wastewater Treatment Works (WWTWs) and how they operate and	<i>Noted</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		sewerage spills we have all over the country which does not reach WWTWs, that is a major requirement for Eutrophication perspective that needs to be looked at	
		I acknowledge the methods that are used to determine eutrophication and suggested that the impact of Ammonia, dissolved Oxygen and the relationship between pH and Temperature be added. We have noted that there is a lack of understanding of what toxicity is, especially regarding the impacts of Ammonia in the aquatic environment.	<i>Noted</i>
51.	Dr Johann Tempelhoff	The Strategy needs to make people aware of the health issues, pollution and eutrophication within water systems. This is very important for the people of South Africa.	Mr Pieter Viljoen responded that the Water Research Commission (WRC) has a project that may partially address his comments regarding community involvement. Project: Research into alignment, scaling and resourcing of citizen-based water quality monitoring to realising the DWS integrated water quality management strategy (K5/2854//1&2). Mr John Dini is the project manager. The intention of the project is monitoring but it creates a big deal of awareness in communities.
52.	Ms Simone Liefferink	Civil society and the private sector can assist the Government in monitoring, management, and reporting, improve the skills base and promote continual improvement. Improved control over charge systems is also needed to be investigated.	<i>Noted</i>
		Civil society can only contribute if water quality results from all water use licences holders are made freely available at Catchment Management Forums. This also addresses the policy objective of transparency.	<i>Noted</i>
		The extent of main rivers in SA classified as having a poor condition increased by 500% with some rivers pushed beyond the point of recovery and since SA has lost over 50% of its wetlands according to the NW&SMP, how will these diffuse sources that contribute to the eutrophic state of our dams be addressed or actioned in the Strategy?	Mr Jurgo van Wyk responded that currently we do not have the necessary tools in hand to properly manage the diffuse sources but there are suggested command-control instruments that could be used to manage diffuse pollution and they highlight what needs further development. He also acknowledged the existing gap that needs to be filled since we are using tools that are not for managing diffuse sources and indicated that the Strategy is giving direction on that.
54.	Dr Jeff Thornton	The inclusion of a text box or text boxes to illustrate case studies would be helpful for readers to see how the process works in practice	<i>Noted</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
55.	Ms Mariette Liefferink	<p>Are any other options available other than an offset in cases where rivers and wetlands cannot be rehabilitated or remediated?</p> <p>The inclusion of the Department of Mineral Resources and Energy (DMR) in this project is very important since some of the pollution issues are related to DMR.</p>	<p>Ms Ndileka Mohapi indicated the importance of corporative governance. Her comments to the Team was that she is hoping that when we look into the implementation, we would be able to look into Roles and Responsibilities because the issues around rehabilitation lies with our sister Department DFFE.</p> <p>Ms Tovhowani Nyamande confirmed that the invitation was extended to DMR. In addition, Ms Ndileka Mohapi indicated that as a stalwart in the water sector, Ms Liefferink would be aware of the challenges in getting DMR representation in meetings, but the Department has a Strategy of getting hold of them.</p>
56.	Dr Eddie Riddell	It would be useful to have an executive summary and a road map for the document to assist the reader to understand the whole document. The document also mentions the vertical and horizontal integration, which he thought needs more emphasis in terms of how the national eutrophication strategy becomes embedded into strategies at the local level such as the Catchment Management Strategy and Strategic implementation plan.	Ms Tovhowani Nyamande indicated that the Department has considered engaging CMFs on a different platform because we require forum representatives to attend meetings like this. We are planning to organize separate visits to them in their respective Forums to capacitate them.
57.	Mr Ash Seetal	The issue of eutrophication is a thorny and persistent water sector issue. The strategy development approach is very comprehensive, well-structured and methodical to this incredibly difficult water and development issue. The various linkages are well articulated. "There is a lot of work that is done in the Sector. Unfortunately, a lot of stakeholders are unaware of the kind of synergies that exists due to the communication. Government is doing a lot of very good work and they not getting any credit for that. This is not something new, we need to work together to overcome this problem of communication, we need forums like this to pass the message to the civil society so that they will also join forces". This is a wonderful strategy that needs to be demonstrated in local level but DWS cannot do that alone, we need to join hands and make this Strategy popular on the ground.	Ms Ndileka Mohapi , concurred with Mr Ash Seetal .
Email correspondence			
58.	Mr Kobus Fell <i>Received 17 August 2021</i>	<p>It was mentioned that the invasive Aquatic Species have a very negative impact on the water resources.</p> <p>I have been residing next to the Roodeplaar Dam since 1966 and have seen</p>	Ms Tovhowani Nyamande thanked Mr Fell for giving a comprehensive background and introduction about the impacts leading to the unpleasant state of Roodeplaar dam. The development of the National Eutrophication Management

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<p>all the cycles that the dam experienced over the past decades. From a crystal-clear water body slowly being converted into a sewerage sludge dam.</p> <p>Two aquatic plant species predominantly being a nuisance are algae as well as water hyacinths. Algae became a problem the moment the Wastewater Treatment Works did not operate as per their licence agreements. A pattern of clear water followed by substantial algae growth remained for many years.</p> <p>13 November 2000, I informed DWS about a new plant on the dam which showed invasive characteristics. Unfortunately, no actions were taken and within a few years the dam was virtually covered by the terrible Water Hyacinth.</p> <p>Several years of aggressive treatment followed to get the plants under control and by 2013 we were almost on top of it.</p> <p>A very successful Strategic Plan was developed by DFFE and all was relatively under control, but an enormous amount of money was spent. During 2014 the reluctance of DFFE to allow me to treat the last remaining plants on the dam lead to a new major infestation which had to be treated with an aerial application of herbicide which I loathe.</p> <p>I objected to this manner of control and we as interested and affected parties managed the plants very successfully for a number of years of which 2019 was at own cost.</p> <p>Unfortunately, this very successful project was abruptly halted beginning of 2020. Despite my objections the process was halted which resulted into another very sad state of affairs.</p> <p>Since then we have again brought the situation with hard work and substantial financial investment under control. The financial expenses incurred during 2020/2021 would have been enough to cover at least 10 years of maintenance.</p> <p>I have presented DWS with a proposed plan during March 2021 to assist all with the proper management and should you be interested I will be more than happy to forward such to you.</p> <p>I am disappointed at how DWS is managing the invasive species and would be more than happy to take you for a trip on the dam and explain the challenges we are facing.</p>	<p><i>Strategy project is aimed at giving effect to the Integrated Water Quality Management Policy, documenting water resource protection tools available into implementation and enforcement.</i></p> <p><i>She indicated that she was aware of some collaborative initiatives and efforts between DWS and DFFE in relation to invasive alien vegetation removal, hence she copied some of her colleagues who might have better insight on the matter. DWS has initiated another project called "The development of the Rehabilitation and Remediation Management Guidelines", which will be of relevance to your areas of concern.</i></p> <p><i>She further suggested that Mr Kobus Fell liaise with her team members (Ms Thwala and Mr Mnyango) and join the stakeholder engagement platforms for both the Eutrophication and Rehabilitation Projects. In that way he will be able to have access to the institutions, stakeholders, and projects of significance, to enable us to work together.</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
59.	<p>Ms Kim Hodgson</p> <p><i>Received August 18</i></p>	<p>I would like to commend the Department on a really solid strategy which will be useful in providing guidance for the water sector. It is also a very honest documentation of the current status and the contributing factors towards increasing eutrophication.</p> <p>The Glossary of Terms, background, and legislative/policy information and context are excellent and I can see this document as being essential reading for all our Umgeni Water Graduates Trainees, Officers and Scientists.</p> <p>One issue is that the document is very long and technically quite dense to absorb (and there is still quite a bit to be added). I looked at it over a couple of days – and still feel as if I didn't do it justice (especially the second half of the document). Is there going to be a summarised version (other than the executive summary) which we can provide to our management and non-technical staff? I feel that there is so much useful content, that it would be great to communicate it, but our senior management is not going to read >250 pages.</p> <p>On a first read of the document, it is challenging not to lose your way in the document (with 5 levels of headings). I am sure that we will become more familiar with the document as it is used further.</p> <p>When it is time for the workshops, I would like to expand the UW attendance list to a number of Scientific Services staff and well as our Operations Process & Quality Managers.</p> <p>I have some comments which I have captured onto the attached comment sheet. I have put some specific comments in, but as a general comment, I was wondering if it would be appropriate to add some more references to water treatability challenges associated with eutrophication? This would be of specific interest to UW. If you would like to use any UW examples in the document, we have some useful information that could be considered to P loadings and chla responses in our dams, specifically, our Inanda Dam indicates increasing eutrophication over time.</p>	<p>Ms Mmaphefo Thwala thanked Ms Hodgson for her comments, complements and inputs on the Draft National Eutrophication Management Strategy. She responded to Ms Hodgson's question as follows: <i>Once the Strategy is completed, we will have a Summary Report</i></p> <p><i>Extending the participation of your colleagues during the stakeholder consultation process is acceptable</i></p> <p><i>Please kindly share the UW case examples, we can thereafter see how best to utilize the information and discuss it within the Authorship Team.</i></p>
Modder Riet CMF, held on 19 August 2021			
60.	<p>Mr Phemelo Boitse</p>	<p>It would be useful to know the status of nutrients within our Catchment. It would be interesting for us to know the impacts in our catchment, which will assist in identifying mitigation factors to be put in place to improve the status</p>	<p>Mr Jurgo van Wyk responded that in the Strategy it is emphasized that the focus is on Catchment Management, and it also makes mention of the monitoring, that we need to look closely at the monitoring programme to avoid duplications.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
61.	Mr Hanke du Toit	Would it be possible for us at the next meeting to get information on the specific points of national interest	<i>Mr Jurgo van Wyk responded that in terms of the status of nutrients, Department's RQIS is responsible for the monitoring programme and further suggested that Mr Sazi Mthembu or Mr Elijah Mogakabe from RQIS be invited to next meeting to elaborate more on national monitoring points.</i>
62.	Mr Luzuko Ntlabezo	There was a remark on slide 17, which said the window to act is getting smaller with the whole eutrophication story. I just want clarity on that	<i>Mr Jurgo van Wyk mentioned that this is more like a water reconciliation of available water, this graph is not on water specifically but sustainability in a resource.</i> <i>The goal is to work smart with the resources that we have.</i> <i>The time to act is now.</i>
63.	Mr Hanke du Toit	<p>The challenge we have and it is not a new challenge, is where do we contribute at grass root level towards implementation and where do we tie-up with regional or catchment level in terms of DWS and which directorate responsible in terms of trying and assessing with implementation. This is because we have a bad record of implementation for instance, WDCS has been in existence for almost 2 decades but none has really happened in terms of implementation.</p> <p>Maybe the question must be put on this forum by saying how do we go about in terms of implementation on the level of where we are?</p>	<i>Mr Jurgo van Wyk, responded that there are many things, it is not only WDCS, there is a long list of initiatives that have not been implemented.</i> <i>The Operational Strategy makes it clear on what needs to happen, there is a whole list of actions that need to happen.</i> <i>The implementation plan, which is the next document we are doing is going to address all the implementation.</i> <i>In the Strategy itself there is also a structure suggested in terms of implementation for different committees.</i>
64.	Mr Victor Mapeshoane	<p>It is clear from the presentation that most our Catchments are at risk, but it is not clear which catchments are at high risks so that we can have a proper risk control, especially as indicated there is a high effect of eutrophication.</p> <p>If we can be assisted with clear presentation that specify which catchments are at high risk. I think it will assist this forum.</p> <p>By just looking at the presentation it is clear that the water reuse is the only way to go, that need a special sophisticated system that will be implemented in municipalities. Hence, we requesting that it will be better to have a specific catchment that is highly affected by eutrophication.</p>	<i>The comment was acknowledged and agreed upon.</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
North-West Integrated Regional Water Monitoring Committee, held on 31 August 2021			
65.	Ms Lillian Siwela	What is the involvement of the Region in the Eutrophication Strategy or the expectation from National Office?	<p>Ms Rachel Mpe responded that the Project Team requested regional representatives, names were provided (Ms Rachel Mpe and Petrus Venter). She explained that the expectation is that regional representatives ensure that stakeholders on the ground are aware of the project. To date meetings have been attended by the representatives including the PSC meeting where external stakeholders were part of the session.</p> <p>Ms Mmaphefo Thwala added that another expectation from the Head Office is regional participation in the upcoming Strategy into Practice component which will be dealing with setting the baseline for the implementation part of the Strategy, requiring extensive involvement from the stakeholders on the localised level. In addition, we have a Project Management Committee platform which includes representatives from all 9 provinces which are expected to share information on the development of the Strategy with different stakeholder on the localised level.</p>
66.	Dr Vhahangwele Masindi	In terms of the presentation, where are we standing in terms of mitigation hierarchy?	<p>Ms Mmaphefo Thwala responded that when it comes to the issue of eutrophication, we are beyond avoiding and preventing the deterioration in most of our dams as per the slide that showed the number of dams in a hypertrophic state. We have largely been failing to minimize, avoid and prevent, we should therefore be moving towards remediation and seeing how best the issue of those resources that are in critical stages can be alleviated. Other strategies such as enforcement and other tools that can be used to hold polluters accountable should be explored.</p>
Orange/Kraai CMF, held on 01 September 2021			
67.	Mr Koos Odendaal	What is the ability to harvest some of these nutrients for monetary value?	<p>Mr Jurgo van Wyk responded that there is an inherent value in all these nutrients. They can be used in products like fertilizers, or that type of process and it will also solve a water quality issue. There is potential, you will just have to do calculation and see if is worth it, and if it does it can become a business. In a case like Hartsbeerspoort Dam, it might not be</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>easy but if you have the relevant technology and means to harvest nutrients at a point source like a Sewerage works, it might work.</i>
68.		May you please highlight the management strategy of managing the Eutrophication Strategy from the ground.	Mr Jurgo van Wyk responded that it is there in the Strategy document. Let's use the Plan stage for an example and say you need to establish the strategic geographic management strategy and thematic plans, that will eventually be part of the Catchment Management Strategy (CMS). Catchment Management Agency will use this document to manage water resources in their Water Management Area. Therefore, this specific step will inform you of what you need to do, and that will form part of the CMS.
69.		How will we get this information on the ground, like farmer level? Will you be able to visit Farmer association to explain the Strategy?	Mr Jurgo van Wyk responded that it will be possible and currently we are using the "Train the trainer" process. Presentations are being developed to equip Regional Office officials working in different management areas. The intention is to capacitate officials in the regions so they are able to assist with the roll-out of the strategy, and only in that way we can be able to take it to everyone on the ground.
Sandvet CMF, held on 16 September 2021			
70.	Ms Simone Liefferink	I have seen this Strategy in different platforms, it is wonderful to see how it has been communicated across. Thank you for the extensive effort, it is probably one of the most important things that we need to focus on in terms of water health in South Africa in this point in time. If I may ask, particularly in the Sandvet catchment we have wetland systems (i.e. pans). How are these systems going to be incorporated into your management plans or are you only looking?	Mr Samkele Mnyango responded that the Vaal Dam was used as a practical demonstration of linkages between impacts versus hotspot areas at the catchment level and how upstream water users contribute to excessive nutrient loading in South African water reservoirs. The strategy will consider all water resources in relation to eutrophication management.
71.		Fantastic, thank you, what we do find, instead of discharging into the Vaal River system itself, we see different discharges coming into these confides systems and they are sensitive to eutrophication since they are such confined systems.	Mr Samkele Mnyango acknowledged the comment and further mentioned that sometimes one does not have to discharge directly into the river system, as demonstrated in the practical example of Vaal Dam.
72.		What I found interesting recently, was a presentation we received on the investigations into the national toxicity testing regimes, and in all toxicity tests, it was found that a lack of eutrophication (a good part of not having nutrients	Mr Samkele Mnyango acknowledged the recommendation and indicated that he hopes Mr Jurgo van Wyk and Ms Mmaphefo Thwala who were attending the CMF with him, will

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		in your system) results in the toxicity analysis showing that the algae species do not reproduce, that is mainly because the nutrients are limited. I would like to make a recommendation if you could please touch base with the team, and articulate this information clearly on the Strategy, because it is poorly understood when we analyse these types of results.	<i>also take this recommendation to consideration.</i>
73.		As water users, we drive around and we often see areas of concern, when seeing spills, etc. Quite often the DWS units cover this well, whenever we raise quires and complaints. Please do use us as an information network for spills from sewage pipelines as that can be difficult to track and manage as a continuous management requirement.	Mr Samkele Mnyango <i>acknowledged the comment and indicated that Regional Officers who are doing the monitoring on the ground are part of this meeting, hopefully, they will consider this suggestion and run with it.</i>
National Water Quality Forum, held on 07 December 2021			
74.	Mr Marcus Selepe	The first phase of the strategy highlighted that we want to know where we are currently. I want to find out if as part of that determination, an attempt or effort was made to establish what is the extent of implementation of the current existing Strategy because while I support the updating and reviewing of the current Strategy and making sure that we up to date but we should be putting more effort on the actual implementation because here in South Africa we seem to be very good with producing Strategies and Policies but in most instances, we tend to be lacking with implementation.	Ms Tovhowani Nyamande <i>concurred with Mr Selepe and mentioned that we really need to look at implementation more than producing well-written documents. We are implementing as we go, for example, the first slide did indicate that instead of producing a new stand-alone Eutrophication Policy, we have given effect to the existing Integrated Water Quality Management Policy (2016), that on its own means we have started implementing the Integrated Water Quality Management Strategy (2017). Additionally, we have determined the Resource Quality Objectives, Reserves, and the Classification, which on its own is more of the implementation in terms of developing the Resource Directed Measures. As I have indicated, we have to emphasize the integration and corporative governance; and we are relying on the implementors who are sitting within the catchment level together with the monitoring programmes.</i>
75.		How many of the Regions are currently implementing the Eutrophication monitoring programme?	Ms Tovhowani Nyamande <i>responded that the Department hasn't had the existing Eutrophication Management Strategy before, but it was only the Eutrophication Monitoring Programme that is in place.</i> Mr Pieter Viljoen <i>added that we still need a position from the Department's Policy and Strategy Officials in terms of political approach on dealing with Municipalities, as we know that 30% of PO₄ and Nitrates comes from municipalities dysfunctional</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p>WWTWs, so if we do talk about implementation and that part is still lacking in implementation.</p> <p>Mr Geert Grobler also added that as part of the Department's hotspots identification project, they assessed PO₄ across the country. The information is contained in the Final Report.</p>
76.	Ms Thandi Mmachaka	Please advise on who will be responsible for the remediation of the affected water resources, is it the responsibility of DWS or water users?	Ms Tovhowani Nyamande responded that this will be the responsibility of the Department and that she and her Team have initiated a project of developing the Rehabilitation Management Guidelines for Water Resources. She further elaborated, that the project will address the Remediation part and the Roles and Responsibilities, but it will not get to the Implementation Plan as that will have to be in collaboration with Catchment Managers as well to develop the Implementation Plan
77.		I think it will also assist to present how the Situation Assessment was conducted and which existing programmes or strategies have been consulted in the situation assessment process.	Ms Tovhowani Nyamande shared the SDS website where the Strategy technical documents (situation assessment and draft strategy) can be assessed: https://www.dws.gov.za/RDM/SDCCO.aspx
Elands-Hex CMF, held 24 February 2022			
78.	Ms Priscilla Mayeza	I assume that already there are management teams on the ground, I will make an example of the Hartbeespoort Dam, have you engaged with them to see what is working, what is not working, what are the failures and successes	Mr Samkele Mnyango indicated that there are eutrophication regional champions, each province has a champion, for instance, Ms Rachel Mpe is the champion in the North-West Province. The Hartbeespoort case was used as one of the lessons learned during the Situation Assessment and Gap Analysis phase.
79.		In terms of priority, will dams have priority over rivers or it will be a uniform strategy?	Mr Samkele Mnyango responded that looking at what we have currently, our mandate is to protect national water resources and as the Department, the focus is on all sources of impacts in all water resources. Therefore, the Strategy is uniform.
80.	Ms Simone Liefferink	How do you set up monitoring and how do you evaluate eutrophication because what we find in a lot of our limits from the issued licenses and forums is that the interpretation of various water quality limits is not clear and consistent. In short, how are the limits derived to ensure they are reasonable,	Mr Samkele Mnyango indicated that the question was related to water quality and monitoring and avoided providing a general response. However, the question was noted for DWS water quality specialists and colleagues from RQIS since they

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		realistic, and scientifically sound? How do you also plan to address the gap of limited specialist in terms water quality and the interpretation thereof?	<i>are the ones who are responsible for eutrophication monitoring.</i>
81.		I have always been wanting to have a meeting with DWS water quality specialists, and have this discussion with them, would it be possible to have a meeting with them?	Mr Samkele Mnyango indicated that such an arrangement can be made with the project management team and eutrophication monitoring specialists.
82.	Ms Mariette Liefferink	Since there are such gaps in water quality data, would that not impact the process of the eutrophication strategy. I am also a member of the committee for the Eutrophication Strategy. I will give you some of the gaps that are reported by the SDG 6 gap report: there is no data on rural water quality, and there are data gaps on quality and quantity.	Mr Samkele Mnyango responded that he was happy that Ms Liefferink is part of the eutrophication PSC and she is aware of such gaps. However, the Department is currently busy with the development of a Data Management Strategy and all these reported gaps have been addressed in that Report. Therefore, the department is aware of these gaps and they are addressing them on these strategies that are being developed which will be put into action.
83.		Many municipalities are not monitoring the quality of their outflow; and there is significant gaps in the availability of data of wastewater discharged by authorized non-municipal wastewater treatment works, maybe that can be included in the challenges. Also want to mention that the situation is serious, where about 62% of our rivers are eutrophic or hypertrophic, so it is really a time where we will like to see the implementation of this project succeed	Mr Samkele Mnyango's response was that the Strategy is one of the few strategies that are done in-house and putting it into action is one of the priorities of the Department, the Strategy itself is giving effect to the Integrated Water Quality Management Strategy. This is the indication that the Department is not only about drafting documents but moving towards implementation and putting these strategies into action.
Implementation of the DWS Disaster Management Plan, held 17 March 2022			
84.	Ms Nomvuyiselo Tamara	Why is the Strategy focusing only on Phosphates while Nitrates are also involved?	Ms Mmaphefo Thwala responded that all nutrients are taken into account, however, the emphasis is on Phosphorus as the main factor due to human-induced pollution impacts. Mr Elijah Mogakabe added that Nitrogen is natural, whereas the Phosphorus can be managed as it is due to anthropogenic impacts as mentioned by Ms Thwala. <i>Input by Ms Tovhowani Nyamande: Although Nitrogen is natural, we do worry about the anthropogenic factor adding the concentration. We need to reduce the nitrogen input into the</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>environment e.g. Industrial, Agricultural (fertilizers) and domestic return-flows contributing to Ammonia – which is a source of Nitrogen</i>
85.	Mr Stranton Mr Narrain	On the 37.7% hypertrophic dams, was it determined how much of this 37.7% is due to anthropogenic activities?	Ms Mmaphefo Thwala responded that she strongly believed this is the anthropogenic related degree of impacts as the natural eutrophication is slow and its impacts only manifest over hundreds/thousands of years.
86.		On the 393 number of Dams, do these outputs then feed into ensuring monitoring is undertaken there as at the moment only 219 is being monitored?	Mr Elijah Mogakabe responded that monitoring efforts had reduced due to budget constraints, however, RQIS is slowly re-activating their monitoring sites
87.	Kenneth Makhubele	Will the EMSSA result in an implementation Plan? Also, what is being done about eutrophication management (monitoring) in the North-West, especially with challenges in Hartees?	Ms Mmaphefo Thwala responded that compilation of the monitoring plan is not the responsibility of the Directorate: Sources Directed studies; however, a Strategy into Practice report is currently being compiled to provide implementation guidance. Mr Elijah Mogakabe responded that monitoring is but 1 of the 19 policy statements outlined in the eutrophication management strategy, there are 18 other policy statements that need to be attended to; he went on to elaborate that this strategy is a national plan and specific case matters of nutrient enrichment in the country can be found in the National State of Water report.
88.	Mr Danie Viljoen	The Gauteng hub challenges are persisting, from what I recall Mr Petrus Venter has dedicated life-time work on the Hartees system. It would be good to get a presentation update from him on the situation and implementation matters.	Ms Mmaphefo Thwala responded that the Authorship team worked in consultation with Mr Venter and he has provided key information including the Strategy cover page photos. She went on to highlight that colleagues should be aware that the strategy was co-developed between various internal specialists residing in different Directorates.
Eutrophication Management Strategy PMC meeting 5 to discuss the EMSIP Report, held 25 May 2022			
89.	Mr Elijah Mogakabe	What does the review of the water resource Eutrophication Strategy mean?	Ms Mmaphefo Thwala responded that this is the draft information as available on the tool, and it is open for amendments. She further provided clarity by adding that currently there is eutrophication status in place across the

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>country as per the results of the NEMP, which needs to be updated continuously; and this is what was meant by the entry under discussion</i>
90.		<p>There is a decommissioned usage of Mercury-Chloride used to preserve micro samples, the reason was to generate the nutrients-related data but they struggled and decided not to produce most of the nutrients for this programme. Currently, they use certain surrogates such as hydro-biological samples (Chlorophyll-a) to provide the eutrophication status in the country until there is a replacement of this toxic Mercury Chloride in their samples. It will take approximately two years to come up with a solution for replacement. The nutrient dataset will still be generated in areas where RQIS has easy access for sampling, where there is no need to preserve samples to ensure they reach the lab within a short period of time.</p> <p>There is a proposal on what needs to be done to improve monitoring of eutrophication in the country and for this financial year the plan is for RQIS to develop an instrument such as service level agreement with the Regional Offices, this is because there is no formal plan or agreement with the regions which is leading to the decline of eutrophication monitoring. This is because monitoring is not part of their Performance Agreement. Therefore, RQIS has initiated writing a submission to the DDG to enforce all the regional Water Resource Management Support Directors to ensure that they mobilise resources within their regions to assist and commit to monitoring some of the RQIS/NEMP sites within their jurisdiction. This is positive and it will address some of the actions highlighted by Ms Mmaphefo Thwala in her presentation.</p> <p>All dams are in remote areas and they have been assisted by the dam safety officers to monitor these dams, which means that there must also be a written agreement between RQIS and the Branch: Infrastructure Build, Operate And Maintenance (IBOM) so that it becomes part and parcel of their functions.</p>	<p><i>Ms Tovhowani Nyamande requested a timeframe for submission of the Service Level Agreement. Mr Elijah Mogakabe responded that they will need about five weeks since they are in the process of collating information. They are also going to make use of the Water Boards for data gathering to be captured into the WMS database. Senior management must also have an agreement with the waterboards. One of the recommendations that were put forth by the Optimization network project conducted by the DWS was to decentralise lab services. That will be possible if Water Use Association can assist because they also use some of the data for their own objectives, so it is a win-win situation.</i></p>
91.	Ms Tovhowani Nyamande	How far is RQIS with the implementation of the remoting sensing (EONEMP)?	<p><i>Mr Elijah Mogakabe responded that initially there was a need for the Department to support that Project of remote sensing, when the project was in the process to be handed over to the Department, the service provider decided to sell the data to the Department. However, the Department is still in the possession of the data that was generated through this project, which is used as part of the Reporting to the SDG 6.6.1. Before the</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>data is used, Mr Sazi Mthembu scrutinizes its credibility because some of it is not a true reflection on what is happening on the ground. There is still a need to interrogate the Service Provider with regards to the data that was generated with the Departmental resources and taxpayers' money through WRC, maybe there might be an agreement but that is going to take time, but we will talk the PSP and provide an update on the next session.</i>
92.	Mr Stanford Macevele	Most of the capacity building presented focuses on the conventional side, will there be a capacity-building similar to the one that was done for the water quality orientation course which can be presented to higher learning institutions? Is it not possible to develop a short course that will be SACNASP accredited that can be presented to higher learning institutions or develop an in-house training which can be led by RQIS or SDS like trainings done by the D: Environment and Recreation?	<i>Ms Tovhowani Nyamande responded that this reminded her of the old Water Quality Management (WQM) orientation courses but unfortunately Mr William Mosefowa was not present in the meeting to respond to this comment. She further indicated that the Team would update the actions and include academic institutions as indicated.</i>
Eutrophication Management Strategy PSC meeting 3, held on 19 August 2022			
93.	Ms Mariette Liefferink (FSE)	I applaud the department for sharing and informing certain Catchment Management Forums (CMFs) about the development of the Eutrophication strategy such as the Jukskei and Eland-Hex CMFs that are within the Crocodile West Limpopo Water Management Area (WMA). But what about the inclusion of other CMFs such as Mooi River, Klip River in the Vaal Water Management Area and others?	<i>Ms Tovhowani Nyamande responded that CMFs in the Vaal WMA are already being engaged by Mr Jurgo van Wyk who is the Author of the Strategy, he attends CMFs within the Vaal System and presents the Strategy in those forums. Ms Ndileka Mohapi added that the forums might not all get the message at the same time, but definitely, they will get the message, in most instances, the priority tends to be with particular areas which have problems and challenges and others based on the intensity of particular problems. Furthermore, there are provincial officers on the ground who attend these forums, and, in most instances, they are represented in the Strategy committee meetings and aware of all developments to share with the forums.</i>
94.	Ms Simone Liefferink	Has the licencing section within the DWS been consulted regarding the Eutrophication Strategy? This question is transpired by the way water use licence limits are being set. The concern is that some of the limits are not achievable and ultimately if water users are to assist the department in achieving this strategy, there should be a need to ensure that all licenses and limits are aligned with these strategies as well as the scientific data when	<i>Ms Ndileka Mohapi responded that the licencing team might have made few errors in the issuing of licenses, some of which have been pointed out. She indicated that she wouldn't want to respond on their behalf because those are licenses that might need to be revised and amended. However, she concurred that some mistakes were made in terms of setting parameter limits</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		setting these limits. There has been a debate on this issue which unfortunately there has been no change	<i>that are not achievable. She concluded that the most important thing was for that the department to firm up its regulatory arm and also highlighted the advantage of having a representation from regulation to assist with compliance education.</i>
95.	Ms Mariette Liefferink	The short-term objectives to compile and publish offset policies for wetlands was discussed and agreed upon in the last meeting. However, the concern is that offsets are often not monitored to determine whether they are successful or not; Is the monitoring of offsets would also be addressed? Secondly, in the authority's column, I noticed a wide pool of role players except for the South African Human Rights Commission. I kindly request that they be part of the responsible role-players. This is because they have been involved in a significant number of investigations of sewage pollution, for example, the sewage pollution of the Vaal and the rivers of Tshwane, and they have published certain directives and as a member of the Advisory Committee of the South African Human Rights Commission, and some of those directives had not been complied with. Thirdly, in terms of the investigation of the financial provisions in conjunction with the water discharge charge system to cover the cost, that the cost for the refurbishment of the Vaal River due to failing wastewater treatment works was estimated at R 1.3 billion and the upgrading was valued at R 7.4 billion in light of the shortfall of R 333 billion by the DWS in the next 10 years, is it going to be possible with a waste discharge cost system to recover these costs?	<p><i>Ms Ndileka Mohapi responded to the matters raised by Ms Mariette Liefferink and indicated that Ms Liefferink has been attending various platforms of the Department for a long period, however, she was raising questions that are not relevant to the development of Eutrophication Management Strategy, as the meeting of the day was not dealing with Vaal CMF related matters. Ms Mohapi further indicated that it becomes very difficult to engage Ms Mariette Liefferink on the Vaal specific matters and enquired if there was someone in attendance involved in Vaal related matters to address those comments.</i></p> <p><i>Ms Ndileka Mohapi added that the Department has gone as far as converting the EMSSA into an implementation Strategy into practice report which would be dissected by the various provinces and catchments to address issues specific to their particular areas. Therefore, she will not get answers for area specific issues on that particular level but only guidance on who has to be involved when certain things are addressed in those particular areas so that there is better management of our water resources.</i></p>
96.	Mr Bradley Nethononda	I have noted that the responsibility for developing offset policy is within DWS and DFFE, and the suggestion is that the list be expanded to include the State Entities such SANBI and Cape Nature, because those are organizations who do the actual work on the ground.	<i>Ms Ndileka Mohapi responded that there was no mistake in having the DFFE as one of the responsible authorities. She clarified the relationship between Cape Nature, DFFE, SANBI, and them and indicated that, unlike DWS, DFFE has arms that account to them that are responsible for operations and as such, it was not a mistake to indicate that DFFE is the one that is responsible for the offset. Those organizations will have to get that instruction from DFFE for them to agree they can recommend, but they cannot move on to implement without their approval from DWS or DFFE. She concluded that the DWS is dependent a lot on DFFE, particularly in issues concerning water security, ensuring the protection of water</i>



	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>source areas and a lot of other issues.</i>
<i>Letter received by Email on 26 August 2022); responded by SDS on 12 December</i>			
97.	Mr Matome Makwela	During the State of the Nation address in 2022, President Cyril Ramaphosa emphasised the acceleration of the establishment of the National Water Resource Infrastructure Agency (NWRIA) by DWS which will be enabled to perform its functions by means of transferring the national water resources assets to it as well as the staff of the Trans Caledon Tunnel Authority (TCTA), the Water Trading Entities (WTE) and the Infrastructure Branch of the department. However, the draft report fails to identify the envisaged NWRIA as the key role player in this matter and articulates its roles and responsibilities. In order to have a sector-wide approach it is therefore suggested that the NWRIA be included in figure 4 and/ Appendix A-1 of the report.	<i>The draft NWRIA Bill is out for Public Comment. One of the specifications of the NWRIA as per the draft Bill is that the Agency must be consistent with national policy including the National Water Resource Strategy. The EMSIP is providing guidance for actions and these are geared at structures in place to ensure practical application on the ground in the specified time frames. Therefore, it is expected that the Agency will be aligned with all the relevant departmental policies and strategies as stipulated in Section 7(1)(a)(i) and (b) of the draft NWRIA Bill. In addition, the NWRIA has been added to Figure 4 as one of the role-players and as the relevant authority in Appendix A-1 (under competencies of Human Settlements and Infrastructure).</i>
98.		The mining industry is already subjected to a plethora of policies, regulations, strategies, and best practices such as GN704 and best practice guideline aimed at addressing eutrophication and broader water quality issues, thus this strategy need to ensure that it does not provide unnecessary additional requirements.	<i>GN 704 deals with regulations on water use specifically for mining and related activities aimed at the protection of water resources. Whereas, the Eutrophication Strategy aims to provide guidance and strategies for minimizing the impacts of excessive nutrient input in water resources. Therefore, the idea is to build on existing platforms to get the message across the sector and implement water quality strategies.</i>
99.		Table 2 provides a long shopping list of prioritized activities categorized into short and long-term with responsible authorities and time frames for accomplishment. It is not clear why there are no medium-term priorities. Some of the short-term and long-term priority actions could be categorized as medium-term depending on the capacity and resource availability. It is also not clear what criteria have been used for prioritization of actions as identified in the table. Identification and prioritization of actions should in our view be informed by the available resources and capacity. There is a potential overlap and duplication of efforts by various authorities on the activities. The report is silent on the rationalization of available resources and possible funding mechanisms for all the prioritized actions. How will the department mobilize the required resources for the implementation of the strategy to realize its aspirations and objectives?	<p><i>The 0 – 5 years’ timeframe covers the short to medium term. The thinking is that 0-2 years is immediate, and 2-5 years is medium term.</i></p> <p><i>Actions were prioritized as per objectives identified in the Integrated Water Quality Management Strategy (2017) and the National Water and Sanitation Master Plan (2018) extended in the EMSIP to specifically focus on Eutrophication Management.</i></p> <p><i>On the funding mechanism, Raw Water Pricing Unit is tasked with the responsibility to develop a funding model for pollution incidents. They will be supporting the Water Resource Regulation Unit responsible for driving the WDCCS in the Department. Currently, the draft Waste Discharge Charge</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p><i>System (WDCS) has been consulted at the following platforms:</i></p> <ul style="list-style-type: none"> • <i>Raw Water tariff consultations;</i> • <i>Draft Pricing Strategy Stakeholder Consultations;</i> • <i>Catchment Management Forums;</i> • <i>One-on-one sessions with Eskom, Mineral Council SA, SALGA, CAIA.</i>
100.		<p>Reference to the financial provision to deal with waste-related activities such as eutrophication management is duplication in that a huge part of the financial provision deals with water-related impacts. Thus, eutrophication management should only be linked to the WDCS and the broader National Water Resource Strategy, not financial provision. This is critical to draw the link between water quality management measures and how these impact on the quantity and availability of water.</p>	<p><i>Agreed, however, the identified role-players need to investigate if it is implemented in their sphere. For instance, DWS has to ensure that it is well covered by the WDCS which is giving effect to the Pricing Strategy.</i></p> <p><i>Furthermore, the WDCS is a tool that will be used to support existing water quality management initiatives. WDCS as a financial incentive has two charges i.e. water resource management charge and the mitigation charge. Notably, the calculation of charges will be based on the volume of wastewater discharged from a point source, and on the degree of management activity required for non-point source registered uses.</i></p>
101.		<p>The strategy does not adequately articulate how the non-point sources from agricultural activities and municipalities will be addressed. Municipalities should not only be expected to comply with the requirements of certification schemes, such as the Green Drop System, which are applied as part of non-economic incentive-based regulation. Noting that the projected national water deficit gap is also affected by inadequate maintenance and management of infrastructure at the municipal level, municipalities need to be held accountable for non-point sources of pollution, to manage their water resources infrastructure and the maintenance thereof to curb sewerage effluent running down the streets into rivers thereby polluting the water resource.</p>	<p><i>Diffuse pollution sources (i.e. agricultural runoff and stormwater) are challenging to monitor and regulate due to various factors, mainly their non-point nature. The IWQM Strategy called for the development of policy and strategy to address diffuse sources of pollution; while the Eutrophication Management Strategy for South Africa (EMSSA) further proposes that legislative amendments may be required and need to be investigated, as part of the development of a non-point sources strategy for South Africa. These may relate to amendments to the definition of water use, the authorisation process; monitoring requirements; and the addition of provisions to allow for the identification of Phosphates and Nitrogen vulnerable zones (hotspots); and provisions requiring several diffuse source-related interventions.</i></p> <p><i>In the interim, EMSSA Operational Strategies recommend the</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p><i>use of a combination of different management instruments for environmental compliance such as the command-and-control, economic, self-regulatory, and societal participation instruments, to improve pollution control, and to manage diffuse nutrient loading of water resources. Some of the instruments that may be potentially employed to manage diffuse sources include but are not limited to:</i></p> <ul style="list-style-type: none"> • <i>The use of Waste Discharge Standards (WDS) to control the discharge of collected diffuse polluted stormwater and return-flow water, e.g. irrigation return-flows;</i> • <i>Pollution taxes (on inputs), e.g. additional tax on herbicides and pesticides</i> • <i>Replace synthetic fertilisers with organic fertilisers, thereby promoting the recycling and reuse of waste.</i>
102.		<p>Sustainable Development Goal (SGD) 6 goes beyond drinking water, sanitation and hygiene to also address the quality and sustainability of water resources, which are critical to the survival of people and the planet. SDG 6 target says “By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”. It is not clear to what extent will the implementation of the strategy contribute towards the achievement of the SDG 6 target.</p>	<p><i>The implementation of the Eutrophication Management Strategy is contributing to the achievement of SDG 6. There are four SDG targets that specifically relate to eutrophication management, these are SDG 6.2 – Sanitation and Hygiene, SDG 6.3 – Water Quality and Wastewater, SDG 6.5 – Water Resource Management, and SDG 6.6 – Water-related ecosystems. The Strategy actions further encourage eutrophication management in relation to reporting on the safe management of faecal waste and sanitation, compliance with phosphorus and nitrogen Waste Discharge Charge Standards, etc.</i></p> <p><i>The contribution of the Strategy to the SDGs has been added in the EMSIP report under section 2.1 – Alignment with the broader objective.</i></p>
Email correspondences			
103.	<p>Ms Mariette Lieferink (FSE)</p> <p><i>Email received 27</i></p>	<p>I thank the scribe sincerely for the detailed Minutes. The reproof I received for raising issues of concern regarding <i>inter alia</i>:</p> <ol style="list-style-type: none"> 1. The monitoring of offsets for wetlands, 	<p>Mr Samkele Mnyango responded that the opinions related to dysfunctional WWTWs are valid and agreed upon. However, the chairperson was referring to your questions regarding the SAHRC’s directives, DWS’s financial shortfall, and presenting of water quality data to CMFs that were not relevant to the</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
	<p>October 2022</p>	<p>2. The findings of the SAHRC pursuant to the Commission’s Inquiry into the sewage pollution of the Vaal River and the City of Tswane’s rivers, namely that the situation regarding failing WWTWs in South Africa and the subsequent pollution of South Africa’s water resources be declared “a national disaster” ,</p> <p>3. The status of the DWS’ compliance with the SAHRC’s directives,</p> <p>4. The DWS’ financial shortfall of R333 billion over the next ten years and whether the waste discharge charge system will assist in addressing the funding gap including the costs for the upgrading and refurbishment of the dysfunctional WWTWs in terms of the Vaal River Intervention,</p> <p>5. The failure of the DWS to provide CMFs within Gauteng with water quality data since September 2021 due to the expiry of the laboratory contract and the non-timeous renewal of the contract,</p> <p>is accurately recorded in the Minutes.</p> <p>Permit me to now respectfully respond to the disapprobation by the honourable Chairperson that these questions “are not relevant to the development of the Eutrophication Management Strategy”.</p> <p>Firstly, the key challenge regarding eutrophication is identified in the Eutrophication Management Strategy as the “insufficient wastewater infrastructure maintenance and investment; deteriorating ecological infrastructure...” hence it is my respectful opinion that my comments pertaining to dysfunctional WWTWs may not be irrelevant to the development of the Eutrophication Management Strategy.</p>	<p><i>agenda of the meeting, not the other matters raised. The chairperson was encouraging members to only raise matters and questions that would assist the Department in shaping the Eutrophication Management Strategy into Practice Prioritised Actions.</i></p>
<p>104.</p>		<p>Secondly, the Eutrophication Management Strategy recommends” improved monitoring programmes and reporting for local and national government”(please refer to TABLE 1: An analysis of anthropogenic nutrient enrichment and the effects of eutrophication in South Africa, based on the DPSIR framework) hence it is my respectful opinion that my comments pertaining to inadequate water quality data and information are relevant to the monitoring and evaluation of the eutrophication management strategy implementation progress.</p> <p>Heartened and encouraged by statements such as:</p>	<p>Mr Samkele Mnyango responded that the Department appreciates your time, effort, and dedication to its initiatives and valuable contribution to the development of the Eutrophication Strategy, since its inception. We do take your input into consideration. We have taken most of them into lessons learnt as the project coordinators. In terms of the participation of civil societies in our platforms, the invitation was extended to different stakeholders, after you shared a list of organizations to be invited, however, we only received feedback from a few organizations.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<ul style="list-style-type: none"> • “active citizenry and social activism is necessary for democracy and development to flourish, to raise the concerns of the voiceless and marginalised and hold government, business and all leaders in society accountable for their actions” (the National Development Plan - 2030); • “civil society will be encouraged to play a watchdog role in supporting compliance by water users with water regulation at all levels” (NWRS-2 [9.4.9]); • “decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge” [NEMA 2(4)(g)]; and • “NEMA not only requires a transparent administration but recognised the contribution that can be made to the protection of the environment by a vigilant and committed public which has most to lose...securing protection is therefore no longer the exclusive preserve of those engaged in these activities, nor of an opaque administration or an under-capacitated and potentially inhibited law enforcement agency which cannot claim the number of successful convictions one would have expected despite clear evidence of historic degradation to our environment” (Uzani Environmental v BP Southern Africa (Pty) Ltd judgment); <p>I actively participated - as the Chairperson correctly stated – in “various platforms of the Department for a long period.” This participation incurred significant opportunity- and financial costs, and mental and emotional strain. I cannot forbear to wish that I might boast myself that my participation in these various platforms was welcomed and appreciated but I now find my participation so little encouraged, that it has become difficult to justify my continued participation. No person is well pleased to have his or her all neglected, be it ever so little.</p> <p>Here I wish to interpose that I, on behalf of the FSE, am one of the few civil society representatives who actively participate in the DWS’ steering committees, task teams and Catchment Management Forums (CMFs). In substantiation, the Attendance Registers for the Eutrophication Management Strategy PSC meetings on the 19th August, 2022 and the 27th July, 2022 list a number of DWS’ officials, academics and industry participants but only one</p>	<p>Additionally, the Public Consultation meeting invitation was extended to different organizations including various CMFs, the private sector, South Africa Human Rights Commission, AfriForum, media, and waterboards.</p>

COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
	<p>civil society representative, namely the FSE.</p> <p>The apathy of civil society to participate in these committees, task teams and CMFs may be attributable to the fact that notwithstanding all their concerns, all the meetings, forums, strategies, policies, regulations and plans, the water situation in South Africa continues to deteriorate. To exemplify, the subjoined slide was presented yesterday at the public consultation workshop on the development of the NWRS-3 by the DDG.</p> <div data-bbox="443 518 1153 1061" style="border: 1px solid black; padding: 10px;"> <p style="text-align: center;">Water Sector Situation Analysis</p> <ul style="list-style-type: none"> 5.3 million households (35%) do not have access to reliable drinking water. 14.1 million people do not have access to safe sanitation A R33 billion funding gap each year for the next 10 years must be closed through improved revenue generation and reduced costs Only 63 % of households have access to a reliable water supply service 56% of waste water treatment works and 44% of water treatment works are in a poor or critical condition. 11% are dysfunctional Only 5% of agricultural water is used by black farmers 41% of municipal water does not generate revenue. 35% is lost through leakage 48% of the remaining wetlands are critically endangered South Africa is facing a projected 17% water deficit by 2030 if it doesn't adopt a new normal <p style="font-size: small; margin-top: 5px;">WATER IS LIFE. SANITATION IS DIGNITY</p> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> </div> <p>I hereby conclude by expressing the hope that the goal and objectives of the Eutrophication Management Project will be achieved.</p>	

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
105.	<p>Dr Bill Hardin</p> <p><i>Received 27 October 2022 (reply to Ms Mariette Liefferink's email)</i></p>	<p>The position expressed in your penultimate paragraph, '... [t]he apathy...', is particularly apt and I have no doubt entirely accurate, especially with respect to this latest rendition of an EMS strategy. For approximately 30 years now there have been efforts to develop and implement an 'EMS' - but there has consistently been a failure to translate clear strategy objectives into actions i.e. the implementation step remains elusive. This vital stage in the process continues to elude the nation and, in light of a deluge of conflating water, fiscal and skills crises, I fear that it may already be too late, and that 'Living with Eutrophication' will be South Africa's continuing reality.</p> <p>The slide you appended on the <i>Water Sector Situational Analysis</i> is a very welcome and open acknowledgement (on the part of the NWRS2 authors) of a host of serious problems but, I believe, it is already understated and that the severity of the overall problem mix is actually much worse than expressed.</p> <p>I share your anguish regarding the continuing lack of resort to extra-Departmental skillsets - this has been a long-standing concern for many and remains difficult to reconcile with the intentions contained in your bullet point list. The DWS should urgently consider externalising the problem, not least by developing the realisation amongst civil society that everyone who uses a toilet contributes to the eutrophication problem.</p>	<p>Mr Jurgo van Wyk indicated that information related to <i>limnology upskilling</i> has been expanded on Action #2 in revised Table 32 of the EMSSA Report (Edition 2).</p> <p>Mr Samkele Mnyango further indicated that this information has been added to the EMSIP Table of Action (Action 70).</p>
106.		<p>Overall, the problem (a lack of an implemented EMS) remains the same as in 2000 and before, yet the water quality conditions have significantly worsened and will continue to do so. There remains a pressing need for acceptance of, and trust in, interventions which will provide relief. These will not be possible on a pan-South African scale, rather they will have particular efficacy in some situations and not in others. Their implementation will be that of 'small beginnings' but, over time, these will demonstrate lighthouse opportunities which may then be extrapolated elsewhere. The timeframe will be long and formidable (decades), but the consequences of continuing to have strategies on paper, with no rolling up of sleeves and practical implementation, are too horrendous to contemplate!</p>	<p>Mr Jurgo van Wyk responded that the purpose of Report 5: <i>Strategy into Practice Report</i>, is to establish urgency and to schedule and resource requisite interventions.</p> <p>Mr Jurgo van Wyk further indicated that the strategy is a national strategy and should be "regionalised" through the establishment of WMA or catchment-level strategies and/ or plans. Report 5: <i>Strategy into Practice Report</i> is complimentary to the Strategy and stipulates a more concrete way forward.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
107.		<p>The 'water crisis' in South Africa is way bigger than the 'Eskom crisis' - but very few realise this - yet. While there are substitutes for mains-delivered electricity, there are no alternatives to water. The past few weeks have seen a rash of instances of water shortages which, in time, will certainly be exacerbated by issues of water quality.</p> <p>Bottom line is that there are clear and viable options that will provide significant and positive outcomes in some instances, but not in all. There is no silver bullet here It is now very much a 'horses for courses' situation and the nature of the intervention will need to dovetail with site-specific problems</p>	<p><i>The comment is noted and welcomed.</i></p>
<i>Eutrophication Management Strategy Public Consultation Meeting, held 14 October 2022</i>			
108.	Mr Gary Bing	<p>(a) The ongoing eutrophication in water bodies is a failure by DWS on two fronts, (i) regulation is not stopping the entry of nutrients, a large part from sewages spills, (ii) not changing inappropriate infrastructure development that channels pollution into water bodies.</p> <p>(b) What needs to be done has been covered in the water sciences literature for a long time and clearly, the strategy has not worked.</p> <p>(c) Endless conferences are not going to change the situation</p> <p>(d) DWS needs to stop sources of pollution/nutrients, especially sewage spills across the country</p> <p>(e) An example of pure neglect by DWS and Water Services Authority (WSA) is the ongoing raw sewage that comes from Delmas that enters both groundwater (a very possible reason for the typhoid past / potential outbreak) in the dolomite under the town and the surface water that goes via Bronkhorstspuit River into the dam, currently with a hyacinth bloom.</p> <p>(f) Another topical example of the ongoing failure of regulation is the raw sewage spill from Cradock that enters the Gariep transfer scheme to Nelson Mandela Bay Metropolitan Municipality (NMB), which appears as the likely source of <i>e-coli</i> found in potable water produced, exacerbating the so-called water shortage situation there, a failure of bulk water supply planning by DWS.</p> <p>(g) Locally, Gauteng, is a massive dumping ground for pollution/nutrients, in the East Rand the ongoing sewage spill enters the Blesbokspruit, which enters the (once) Ramsar Marievale Bird Sanctuary, which conveniently enters downstream of Rand Water take-off point, joins the sewage from Emfuleni to go past Kimberly</p> <p>(h) There is too much so-called policy that basically consists of plenty more meetings, while the pollution/sewage continues to reek havoc</p>	<p><i>Mr Peet Venter</i> responded that humans are facing the problem they have created themselves and indicated that the root cause is our anthropogenic impacts. He made an example of the Hartbeespoort dam, one treatment plant cannot solve problems created by other treatment works, the reality is that there is no replacement for dysfunctional WWTWs, and there is no quick fix for thousands of distorted users that are inputting into the dam and there are no wetlands left in the Hartbeespoort Catchment to purify water.</p> <p><i>Mr Fikile Guma</i> asked why we are not questioning the roles/responsibilities of Provincial and Local Government structures in the alleviation/prevention of these problems? Money is allocated to them to perform the function of wastewater management through equitable shares and various grants. Let us hear their explanation. <i>Mr Gary Bing</i> responded that they have already heard a major metro, all of whom are WSAs with constitutional responsibilities, who will throw the ball back to DWS, and rightly so in many cases. <i>Mr Fikile Guma</i> emphasized his point that this must be seriously challenged simply from the point of view of effective resource management. <i>Gary Bing</i> agreed and further mentioned that the problem that appears is that the urban areas as major sources is somehow seen as separate from catchment management.</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<ul style="list-style-type: none"> (i) Cooperative governance in practice is about passing the buck. (j) Talking about the Hennops, not so far from the conference, this is a major source, with sewage flows from West Rand, the driver for hyacinth in Harties (k) No need for extensive data, there is plenty in the water sciences literature on what needs to be done, and on how to manage with minimal data, i.e. learn by doing, the keyword: 'do'; (l) The use of appropriate infrastructure, most of which consists of 'shaping' the landscape is hampered by ridiculous red tape. A major impactor is the WSAs, please don't blame the consumer 	
109.	Mr Rodney Genricks	<p>There is a concern regarding the consideration of the bioremediation of dams as the last resort. Bioremediation goes beyond dams and is often confused with flocculation. Bioremediation needs to be considered for both upstream and downstream of Wastewater Treatment Works (WWTW) to assist with reducing the impact of the WWTW as well as the management of sludge which causes more problems in the rivers.</p> <p>We were not consulted at the high level with the eutrophication strategies plan and I believe that there needs to be broader communication regarding the bioremediation and the common flocculation used in the WWTWs</p>	<p>Ms Ndileka Mohapi responded and appreciated the input from someone who is dealing with issues on the ground and indicated that the team will check how much of that has been cited in the Strategy into Practice document and see if there is a need to enhance the document.</p>
110.	Mr Pule Makena	<p>The Department need to assist with the challenges related to service delivery such as reinstating the green and blue drop scorecards for municipality managers and reviewing water use licences, particularly for treatment plants that are experiencing high levels of phosphate and nitrates. The challenge currently is compliance and enforcement officers who do not have an understanding of water quality issues.</p>	<p>Ms Ndileka Mohapi asked all members why they wanted to be policed? She indicated that she was not expecting an answer but wanted members to reflect. She gave an example of the developed countries which have minimal policing.</p> <p>Mr Paddy Waller responded that policing is necessary as governments do not comply with their own laws and regulations. Mr Gary Bing was of the view that "why we want to be policed" is not the question, instead, the root cause is a neglect of duty by authorities. Ndileka Mohapi replied that she was trying to get all of us to have a conscience. Dr Rossali Smith added that Policing is necessary because officials are not complying.</p>
111.	Dr Esper Ncube	<p>We are dealing with a national strategic problem and that we must be realistic. It is crucial to get to the root cause such as malfunctioning WWTWs and anthropogenic activities that exacerbate the eutrophication problem. The question should be on how we solve root causes such as problems related to WWTWs failing to remove nutrients in the systems. What has the Department</p>	<p><i>The comment is noted and welcomed.</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		<p>of Forestry, Fisheries and the Environment (DFFE) colleagues done about the progress of the polluter pays principle, is it working or not? What successful implementation instruments are in place to tackle the problem, and are they working? This should not be the problem of the DWS but for all affected parties.</p> <p>One can be proud of being in the sector for many years, but the question remains, what are you leaving, and what have you done?</p>	
112.	Mr Kyle Rogers	DWS being silent on the success stories related to cleaning and purifying polluted water to consumable water, and yet, with bioremediation, there are success stories associated with it. The DWS needs to share such success stories and duplicate and scale them because they have been going on for so many years- they need more time and strategy	<i>Ms Ndileka Mohapi concurred and added that this could assist with lessons learned and on a pilot scale in different areas.</i>
113.	Jo Dreyer	Hartbeespoort is the only dam in the country that has the percentage coverage of <i>sylvina minimalis</i> . This is a very big issue and there is more sludge under this water body due to the spraying of hyacinth. The bioremediation project is what needs to be implemented	<i>The comment is noted and welcomed. Please also see Mr Peet Venter response on item 108 above.</i>
114.	Cara Stokes	If the DWS can expedite the rehabilitation and construction of wetlands to assist with nutrient loads that would really help.	<i>Mr Samkele Mnyango responded that the Department's Directorate Sources Directed Studies is currently undertaking a project on the Rehabilitation Management Guidelines for Water Resources which aims to provide guidance to the water users on step-by-step rehabilitation measures/interventions to be followed for executing rehabilitation with specific attention to and consideration to planning, design, implementation, and monitoring for the identified impacts</i>
115.	Dr Rossali Smith	Water hyacinth in the Hartbeespoort dam is managed biologically, not chemically. A biological control agent is in the pipeline for <i>Salvinia minimalis</i> . Reducing nutrient input is the main solution.	<i>The comment is noted and welcomed. Please also see Mr Peet Venter response on item 108 above.</i>
116.	Jo Dreyer	Unfortunately, chemicals have been a part of the hyacinth control, there is video and photographic evidence of the dam being sprayed over many years. Only recently the bugs were used and still what they don't consume goes to the bottom of the dam.	<i>The comment is noted and welcomed.</i>
117.	Marlé M Kunneke	WWTW must be a national priority to upgrade and bioremediation must be implemented for other urban runoff (polluted stormwater) in every town/city	<i>Mr Tovhowani Nyamande concurred with the upgrading of the WWTW and rehabilitation and mentioned that upgrading of the WWTW and Rehabilitation of water resources are amongst</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<i>the Departmental priority management actions and Summit's resolutions.</i>
118.	Mr Marcus Selepe	I am concerned about the way municipalities fill their vacant posts. Municipalities tend to prioritize general workers instead of appointing qualified people to technical positions, which is also one of the root causes of poor operation of treatment works. The proposal is that the DWS needs to influence the Department of Cooperative Governance and Traditional Affairs (COGTA) on the appointment of technical and qualified personnel	Ms Ndileka Mohapi noted the comment and added that there is a lot of effort in involving the local government. She added that the DWS has been supporting the local government since the dawn of democracy, which might have been the problem that led us to where we are and maybe we need to re-look at how the DWS is supporting the local government.
119.	Dr Vhahangwele Masindi	We have a beautiful blueprint, that if implemented effectively, can yield the desired output. I concur with Dr Esper Ncube on the diagnostic of the problem and some of the challenges leading to the problem including WWTWs that are operating above their design capacity. Secondly, the Government needs to re-look at the polluter pays principle. The proposal is that there needs to be a principle or operation that ceases operation if one pollutes, and the government will take over the operation of that facility.	Ms Ndileka Mohapi responded that we need to look at developing integrated planning as Government. She added that the cease-to-operate resolution is an interesting proposal, however she was not sure where the government would source the resources for intervention as it is already maxed out, but it is a consideration for the future.
120.	Mr Pule Makena	The operational strategy talks to what the Blesbok strategy is doing and the Department of Mineral Resources and Energy (DMRE) is causing main problems on the blue deal project. DMRE needs to assist with some of the actions identified and so far we are struggling to obtain them on board.	Ms Ndileka Mohapi advised members who are struggling to get hold of DMRE to communicate with the DWS team.
121.	Dr Esper Ncube	I commend the Directorate Sources Directed Studies (D: SDS) Team on the implementation actions, which are very strategic. It is important to note that you cannot manage what you do not know. Hence what is needed is annual reporting of the National status of eutrophication – on a national level and prioritized actions. The recommendation is that the status of eutrophication at the national level be prioritized; once we know this status, we can establish what needs to be done, and with whom. Such a report needs to take into consideration both point and non-point sources as well as the eutrophication hotspots. This would assist in putting together the programme of action going forward	Ms Ndileka Mohapi responded that the DWS has an annual National State of Water Report in place which covers the hotspots. She also indicated that there is a component within the DWS under National Water Resource Planning that generate water quality reports, highlighting the key pollutants in various areas and hotspots documented into the National State of Water Report. Ms Ndileka Mohapi further reminded the meeting about the DWS website and pleaded with colleagues from the DWS Communication to keep on updating the website to make it more user-friendly
122.	Mr Stephan Veldsman	There must be consequences for poor management such as taking accounting officers to court, otherwise, there is nothing that is going to change.	<i>Comment is noted and welcomed.</i>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
123.	Ms Zama Ndlovu	<p>We have policies and strategies in place, but the actual implementation is lacking, and the implementation should start at the lower levels.</p> <p>The first step in managing eutrophication and water resources is educating the communities about such problems. For example, people are not aware, and they think using soaps and other detergents cleans water meanwhile it is the opposite.</p>	<p>Mr Pieter Viljoen responded that the amount of phosphate has been reduced by at least 30% because companies are moving away from the use of expensive phosphate in their products (detergents). He concluded that the problem starts when people are using imported detergents which might still contain phosphates that we cannot quantify because it is not regulated in other countries.</p> <p>Ms Ndileka Mohapi added that in the regulation space it is beyond the DWS, we need departments such as the Department of Trade Industry and Competition (DTIC) to come on board.</p>
124.	Ms Lors Coogan	<p>I am concerned about the informal settlements that are situated next to the rivers, which have a huge impact on river systems. Hence, the construction of informal settlements next to rivers has to be done away with. Secondly, the leakage of sewerage lines and malfunctioning WWTWs, at what stage are we going to say this is unacceptable, instead of complaining about cable theft and power outages? We need to look at other plans such as applying bioremediations within the WWTWs</p>	<p>Ms Ndileka Mohapi acknowledged the comment and indicated that the DWS team might need to liaise with her further</p>
125.	Ms Mbali Dlamini	<p>The issue of informal settlements and highlighted that the informal settlements have their own reticulation systems which feed directly into the rivers. In addition, there are issues of lack of service delivery in connection with solid waste not being collected and their last resort is to dump waste in the rivers.</p> <p>There is a comment received from one of the Catchment Management Forum (CMF) members, and I hope there will be a way forward from the Head Office.</p> <p>The comment reads as follows:</p> <p><i>“the latest green drop reporting is silent on the proportion of the waste generated as a contribution of cleaner potable water that is flushed, that is reaching the WWTW because these major gaps mean that waste that doesn’t reach the WWTW lands up in our rivers as an untreated sewage”.</i></p>	<p>Mr Samkele Mnyango noted the comment from the concerned CMF members and indicated that the comment will be referred to the relevant Officials who are responsible for the Blue-Green Drop systems.</p>
126.	Cara Stokes	<p>Officials and Project Consultants who oversee expensive WWTW upgrades must be held accountable for quality outputs over the long term. Handing a brand-new plant to a municipality that has no capacity to manage it, doesn’t</p>	<p>Gary Bing responded that it does not help that engineers and technicians have been de-prioritized, in WSAs. In short term, use current powers to stop pollution sources. So, the long term</p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		help.	<i>still supports inappropriate, linear type 'big infrastructure'. Best practices are well documented in international literature, please don't re-invent the wheel.</i>
127.	Gary Bing	Water Services Development Plans (WSDPs): just operating the WWTWs well by WSAs is all that is needed, it does not make sense that this is a long-term by that time we would have lost all our biodiversity. Regional monitoring is already being done by civil society who are working effortlessly. The water forums are not being listened to; an example is a situation with the Delmas raw sewage leak. The WSAs may be autonomous but they are subject to the law. He also asked if the priority report includes Delmas WWTWs?	Ndileka Mohapi responded that the presentations of the day were at the national level and the localized priorities will be looked into by the various regional offices, hence, Gary Bing would not pick up a strategy for Delmas but the Mpumalanga Provincial Head was attending who has a vested interest and will ensure that the Strategy is effectively implemented by his office, as well as the officials from the Inkomati-Usutu Catchment Management Agency (IU-CMA).
128.	Cara Stokes	<p>Unfortunately, there is no more time, we have almost lost everything already. As we speak, sewerage flows through Tembisa into the Kaalspruit, and wastewater from agriculture and WWTWs in Delmas flows into the Bronkhorstspuit. Tshwane then further pollutes Bronkies town. The Vaal has already passed the tipping point of Eutrophication - Gauteng's water source. Rooiwaal WWTW is destroying the Agricultural economy. Tourism is destroyed at Hartbeespoort, Roodeplaat dam, and Bronkies dam. If it's not the water quality it's an invasive weed taking over as a result of nutrients, in most cases, it's both.</p> <p>Cyanobacteria is deadly expensive to fix, and detrimental to a local economy and should be prioritized as a national urgency. Lastly, interventions such as LG Sonics, Phoslock, floating wetlands, artificial wetlands, natural wetlands, pump and treat, desludging, and bioremediation are available for use. Some sewerage from farms will take years to upgrade and pollution worsens while doing so.</p> <p>We can't see upgrading the plants as the only solution, there has to be multiple approaches to keeping the catchment clean.</p>	Dr Robert Siebritz concurred that the Educational drives can start at the grassroots and the DWS should intensify the education outreach programmes at school levels and then beyond.
Email correspondences			
129.	Dr Konanani Khorommbi <i>Received 17 October 2022</i>	I recommend the training of the champions to roll out the consultative process. After the empowerment of champions, these would be able to develop their water management area/provincial plan for implementation. Under our water management area, we would for example hold our provincial/water management session to empower catchment managers to roll the strategy out by making presentations in catchment forums. If	<p>Ms Tovhowani Nyamande responded that Capacity building for the Regional Eutrophication Champions will definitely be considered.</p> <p><i>The Team will liaise with Dr Konanani Khorommbi and the champions on the side, to roll-out the Capacity Building Plan</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
		necessary, focused workshops can also be held with the different water use sectors and organized groups. This will allow the generation of further inputs to the strategy for consideration by the project team.	<i>and Implementation timelines.</i>
130.	Dr Pumla Myeki (the dtic) <i>Received 02 November 2022</i>	In the document the industry sector has been identified as the contributor to eutrophication through Industrial effluent, and therefore the dtic is listed as a responsible partner under Source Directed Strategies interventions. Just for clarity, are we expected to develop the water management regulations or to participate actively when DWS develops those?	Mr Samkele Mnyango responded that it is anticipated that all the identified role-players include the identified actions in their Business Plan (Annual Performance Plan) as part of their operation/core or support functions. Hence, they were requested to indicate if they agree with the timeframe allocated against their Departments and/or Institutions.
131.	Dr Esper Ncube (Rand Water)	DWS is the regulator and has the power to delegate through various avenues.	Agreed.
132.	<i>Received 11 November 2022</i>	Slide 8 - The actions below are planned for implementation over a long term - Over 5-10 years (a) Develop and implement a Diffuse Source Management Strategy for South Africa that harmonise with and support the Eutrophication Management Strategy for South Africa. (b) Develop and implement sector specific action plans to reduce diffuse source pollution in support of the Diffuse Source Management Strategy for South Africa. This is not acceptable. Given the current situation and its urgency caused by the malfunctioning wastewater treatment plants, the short-term source directed measures identified in slide 8 should be implemented in parallel with these two activities indicated above.	(a) Agreed. This action has been moved to the short-medium term (0-5 years) as it requires urgent attention: the development of Diffuse Pollution Management Strategies. Eutrophication Management Strategy for South Africa (EMSSA) proposes that legislative amendments may be required and need to be investigated, as part of the development of a non-point sources strategy for South Africa. These may relate to amendments of the definition of water use, the authorisation process; monitoring requirements; and the addition of provisions to allow for the identification of Phosphates and Nitrogen vulnerable zones (hotspots); and provisions requiring several diffuse source related interventions. (b) Diffuse pollution sources (i.e. agricultural runoff, settlements, industry and stormwater) are challenging to monitor and regulate due to various factors, mainly their non-point nature and heterogenous polluter. However, in the absence of a diffuse pollution management strategy, it is agreed that sector specific action plans are needed to reduce diffuse source pollution. Such plans ought to be localized to be catchment specific to diffuse pollution sources as they differ per area. In the interim, EMSSA Operational Strategies recommend the use of a combination of different management instruments for

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p><i>environmental compliance such as the command-and-control, economic, self-regulatory, and societal participation instruments, to improve pollution control, and to manage diffuse nutrient loading of water resources. Some of the instruments that may be potentially employed to manage diffuse sources include but are not limited to:</i></p> <ul style="list-style-type: none"> • <i>The use of Waste Discharge Standards (WDS) to control the discharge of collected diffuse polluted stormwater and return-flow water, e.g. irrigation return-flows;</i> • <i>Pollution taxes (on inputs), e.g. additional tax on herbicides and pesticides;</i> • <i>Replace synthetic fertilisers with organic fertilisers, thereby promoting recycling and reuse of waste.</i>
133.		<p>The same applies to slide 9. While implementation of short-term initiatives, Support SDG 6.3.2D and internalize reporting on the fitness-for-use of South Africa’s water resources.</p>	<p><i>Agreed, this is an ongoing activity, it is currently being championed by the Directorate: Resource Quality Information Systems within the Department.</i></p>
134.		<p>Develop and implement a programme to remediate priority impoundments and water resources, in accordance with relevant geographical water quality management strategies and thematic plans, utilizing revenue from the Waste Discharge Charge System (WDCS)</p> <p>This is overdue, it cannot be left for later. Propose KPIs using the Shareholder compact for certain institutions and you will get immediate help.</p>	<p><i>Point is noted, it is anticipated that all the identified role-players include the identified actions in their Business Plans (Annual Performance Plan) as part of their operation/core or support functions.</i></p> <p><i>The Department’s communication services is assisting in this regard by spreading the information both internally and externally.</i></p>
135.		<p>Slide 13 – Establish and implement geographical water quality management strategies and thematic plans for three priority WMAs (Crocodile(west) Marico, upper Vaal, and Upper Olifants) first, followed by the establishment and implementation of water quality management strategies and plans for the remaining WMAs.</p> <p>Waste load accounting, goal setting, and water quality allocation plan development constitute important components of this process.</p> <p>The Department does not need to delay this. Appoint Champions that are going to work with Water utilities in the areas to assist with the process.</p>	<p><i>Agreed, the Department is in the process of implementing the WDCS. The Strategy has been consulted in different platforms including Raw water tariff consultation, draft Pricing Strategy Stakeholder consultations, etc. Certain gaps were identified during the consultation such as reviewing of the WARMS/ Registration Forms, and Review of the NPS Calculator. There are concerns and inputs that have been raised by the stakeholders specifically related to the Waste Mitigation Charge such as ringfencing of the funds, how will the mitigation charge work if a mine already has a Treatment Plant. The</i></p>

	COMMENTATOR(S)	COMMENTS, QUESTIONS AND/OR ISSUES	RESPONSE(S)
			<p><i>Department is currently updating all issues raised.</i></p> <p><i>The WDCS strategy will be implemented as follows:</i></p> <ul style="list-style-type: none"> • <i>Financial Year 23/24:</i> <ul style="list-style-type: none"> ○ <i>Implement the Water Resources Management Charge for waste-related activities in priority Catchments (Vaal, Limpopo & Olifants)</i> ○ <i>Identify lessons and monitor the implementation in the 3 WMA</i> ○ <i>Assessment of the other remaining WMAs will be conducted in FY 23/24 to prepare for the implementation of the WRM & Mitigation Charge countrywide.</i> ○ <i>Identify catchment and pilot areas for the Waste Mitigation Charge in the Vaal</i> ○ <i>System readiness of SAP and WARMS with the Waste Mitigation Charge Calculation</i> • <i>FY 24/25:</i> <ul style="list-style-type: none"> ○ <i>Implement the Water Resources Management Charge for waste-related activities countrywide</i> ○ <i>Monitor the Implementation</i> • <i>FY 25/26: Implement the Waste Mitigation Charge in catchments where it is required.</i>