



REHABILITATION MANAGEMENT GUIDELINES FOR WATER RESOURCES

PROJECT STEERING COMMITTEE (PSC) MEETING 03 MINUTES

Date: Tuesday, 22 August 2023

Venue: MS Teams (Virtual)

Time: 10:00 – 13:00

The below PSC Meeting 03 minutes are subdivided into three (3) parts, namely, i) Meeting Proceedings, ii) Meeting Actions & iii) Issues & Responses from the Meeting Chat

(i) PSC Meeting 03 Meeting Proceedings

Item No.	Discussion
1.	<p><u>Welcome and Introduction</u></p> <ul style="list-style-type: none">◆ The Chairperson, Ms Ndileka Mohapi, opened the meeting, welcomed all the attendees, and thanked them for their attendance.◆ She highlighted that the objective of the Project Steering Committee (PSC) Meeting 03 is to provide progress on the Rehabilitation Management Guidelines (RMGs) Project since the last meeting that was held on 19 May 2023.◆ Ms Ndileka Mohapi gave all the attendees an opportunity to introduce themselves, indicate their respective organizations and areas of interests.
2.	<p><u>Attendance and Apologies</u></p> <p>Please refer to Table 1 under Appendix A for a list of attendees and apologies rendered.</p>
3.	<p><u>Acceptance of Agenda</u></p> <ul style="list-style-type: none">◆ The agenda of the meeting was adopted with no additions.
4.	<p><u>Approval of Minutes of Previous Meeting</u></p> <ul style="list-style-type: none">◆ The minutes of the previous meeting were perused, and a minor correction was made pertaining to Action 10. Ms Ndileka Mohapi requested the Project Team to capture this action clearly according to how it was executed <i>i.e., <u>Legislation table in the Estuarine Report has been updated with Sanitation, Land use Management, Waste Management, Stormwater Management, Diffuse Water and Quality Management by-laws.</u></i>◆ Ms Ndileka Mohapi requested for the adoption of the minutes as a true reflection of the proceedings of the previous meeting. Mr Sipiwo Xongo and Ms Tembisa Torch moved for the adoption.◆ Ms Ndileka Mohapi further indicated that there is a unit that focuses on by-laws in DWS, and she encouraged the Project Team to consult them as well.◆ Ms Debbie Muir acknowledged that she was not part of the previous meeting and had the following inputs/comments:

- She indicated that chemical, pesticide residues and Contaminants of Emerging Concern (CECs) (with regards to transformation products, residues, metabolites, and their link to the knowledge hub of CECs) were not considered for the Rivers, Wetlands and Estuarine Themes.
 - She added that this is an area of concern as these pollutants have a major impact on aquatic ecosystems, especially with the indicators of climate change;
 - She requested the Project Team to take the above pollutants into consideration when developing the RMGs.
- ◆ **Ms Ndileka Mohapi** welcomed the above inputs/comments. She responded that the Project Team would consider them and further engage with **Ms Debbie Muir** in terms of the gaps she has identified.
 - ◆ The minutes of the previous meeting were approved with a minor correction and the below action still in progress:
 - **Action 4:** The Project Team to onboard a representative from the Department of Cooperative Governance and Traditional Affairs (COGTA).

5. Meeting Objectives and Project Progress

- ◆ **Ms Tovhowani Nyamande** gave a presentation on the Project Objectives and Progress.
- ◆ **Ms Ndileka Mohapi** appreciated that **Ms Tovhowani Nyamande** took the opportunity to provide the new PSC members with the project progress. She opened the floor for discussions and the following inputs/comments were received.

Discussions

- ◆ **Ms Debbie Muir** indicated that she did not receive the Estuarine RMGs Report that was circulated and requested the Project Team to forward it to her for inputs.
- ◆ **Ms Tovhowani Nyamande** responded that the Estuarine Report would be shared with **Ms Debbie Muir**. She also added that the due date for submission of inputs/comments on the report would be considered for extension by the Project Team.
- ◆ **Mr Matome Makwela** enquired whether there was representation from the Department of Mineral Resources and Energy (DMRE) at the one-on-one engagement held between the Department of Water and Sanitation (DWS) and the Department of Forestry, Fisheries, and the Environment (DFFE). He emphasized his question by indicating that DFFE is the competent authority in terms of policy making and the lead for the one environment management system for the mining industry.
- ◆ **Ms Tovhowani Nyamande** responded that the Project Team has been struggling to get a representative from DMRE but would continue to try by all means possible to onboard them on the PSC.
- ◆ **Ms Ndileka Mohapi** added that the Project Team takes note of all suggested further consultations with the relevant authorities.
- ◆ **Ms Debbie Muir** enquired at which level was the consultation done with DFFE because the implementation of interventions for Dams and Rivers is the responsibility of the Environmental Programmes unit within DFFE.
- ◆ **Ms Ndileka Mohapi** responded to **Ms Debbie Muir** by indicating that the Dams and Lakes Themes are not the focus of the current meeting and would be dealt with in the upcoming PSC Meeting.
- ◆ **Ms Debbie Muir** indicated that her enquiry was based on the recent consultation dates for the Rivers Theme highlighted on the presentation.
- ◆ **Ms Tovhowani Nyamande** confirmed that the first consultation on the Rivers and Wetlands Themes was with the DFFE Environmental Programmes unit. She added that the second consultation on the

Estuarine Theme was with the DFFE Coastal Biodiversity Conservation and Estuaries Management unit which is represented by **Ms Yolokazi Galada**.

- ◆ **Ms Debbie Muir** indicated that the DFFE Environmental Programmes unit is responsible for the implementation of control measures for Rivers, and she is concerned that the Project Team has already completed the Rivers RMGs without first consulting with the said DFFE unit.
- ◆ **Ms Ndileka Mohapi** responded that it is impossible to invite the whole DFFE Environmental Programmes unit into one meeting because of the shared mandate wherein everyone has an equal responsibility. She added that only a few officials are required to represent their respective institutions, and the honors lies on these representatives to ensure they keep their institutions abreast of the project developments and relay the progress to their institutions accordingly.
- ◆ **Mr Vhangani Silima** was experiencing network challenges and indicated that he is new to the PSC platform and requested the Project Team to share the project documents with him.
- ◆ **Ms Ndileka Mohapi** referred **Mr Vhangani Silima** to the Chief Directorate's website to access the project documents.
- ◆ **Ms Tovhowani Nyamande** confirmed that members can access project presentations on the website as well.

6. [Technical Presentation on RMGs for Estuarine Report](#)

- ◆ **Mr Kgotso Mahlahlane** gave the first part of the technical presentation on the Draft Estuarine RMGs Report; covering the following components:
 - Project Deliverables and Progress;
 - Purpose of the Estuarine Report;
 - Water Resources Themes;
 - Definition of Watercourses;
 - Link between water resources and characteristics of watercourses;
 - Interlinkages between drivers and responses;
 - Rehabilitation approach;
 - List of Applicable Legislation for Estuaries;
 - Overview of the RMGs for Estuaries Scenarios;
 - Hydrology and Geomorphology impacts; and
 - RMGs for the following characteristics of watercourses:
 - **Hydrology**
 - Scenario 1: Rehabilitation or removal of physical structures (stormwater structures, weirs) within the water resource.
 - Scenario 2: Control & Management of over-abstraction activities in the catchment affecting the freshwater volumes reaching the estuary.
 - **Geomorphology**
 - Scenario 1: Rehabilitation of activities relating to sand mining, road construction & dredging (sand).
 - Scenario 2: Bank Erosion and Dune Rehabilitation.
- ◆ **Ms Ndileka Mohapi** opened the floor for discussion and the below inputs/comments were received.

[Discussions](#)

- ◆ **Ms Debbie Muir** suggested the addition of the Farm Feeds, Fertilizers, Agricultural Remedies and Stock Remedies Act, (Act 36 of 1947) to the legislation section of the Estuarine RMGs to cater for pesticides and chemical residues, which have impacts on estuaries due to agricultural runoff.

- ◆ **Dr Heidi van Deventer** provided the below general inputs/comments on the steps presented in the report before she moved to another meeting. She added that she would send the Project Team more specific written inputs/comments:
 - One of the targets of the Global Biodiversity Framework (GBF), specifically Target 2, aims at the reporting of interventions undertaken for degraded ecosystems;
 - It would therefore be critical to include the reporting and documenting of the extent and localities of any interventions undertaken and the desired state;
 - The relevant section in the report for inclusion of the information would be on Phase 5 of Monitoring and Evaluation of the RMGs;
 - The inclusion of reporting in the phase for rehabilitation interventions would contribute to a solid database wherein we could collect and map even those areas that have been rehabilitated. Thereafter, reporting would be done by the GBF which is part of the Convention on Biological Diversity where South Africa would need to report by 2030 on the extent of interventions done.
- ◆ **Ms Ndileka Mohapi** welcomed the inputs/comments for consideration by the Project Team. She also highlighted that it is critical to identify the custodian who would be responsible for accessing and updating data/information to ensure that the outputs of the database are accurate.
- ◆ **Dr Heidi van Deventer** thanked **Ms Ndileka Mohapi** and added that she is of the opinion that the RMGs could really facilitate the above process.
- ◆ **Ms Debbie Muir** added to the above input provided by **Dr Heidi van Deventer** indicating the following:
 - The importance of reporting on the contamination of water resources and Sustainable Development Goal (SDG) 15 towards 2030, perhaps looking at contamination of water and the monitoring thereof;
 - There is also a target under the United Nations Framework Convention on Climate Change (UNFCCC) to maintain pesticide contamination;
 - In addition, there is also a target under the climate change because of the link between pesticides and climate change. She also added that she would send the Project Team more specific written inputs/comments.
- ◆ **Ms Ndileka Mohapi** indicated that the DWS has a fully-fledged task team responsible for working and reporting on the SDGs, specifically focusing on water quality. She added that **Dr Heidi van Deventer's** comment is different in a sense that it is regarding a database specifically for hosting rehabilitation related data/information.
- ◆ **Ms Debbie Muir** responded that pesticide issues/contaminants are associated with water quality and therefore need to be considered for the RMGs. She added that the linkages to the other higher-level targets should be dealt with on another level.
- ◆ **Ms Yolokazi Galada** indicated that the hydrology component of the presentation focused only on over-abstraction and removal of instream infrastructure. She enquired on the following:
 - She asked whether the Project Team considered the increase in baseflow whereby there is an increase in freshwater because of wastewater treatment works?
 - She added that an example would be a system that has changed completely from being marine dominated to a more freshwater system *i.e.*, the system not experiencing much salinity intrusion which causes loss of species like mangroves (which are key blue carbon ecosystems) because the system has changed from being marine to fresh in nature.
- ◆ **Mr Kgotso Mahlahlane** asked for clarity in terms of what would be the cause of the increase in the baseflow contributing to change of system to change from being marine to fresh?
- ◆ **Ms Yolokazi Galada** indicated that the increase would emanate from the Wastewater Treatment Works (WWTWs) discharging into the system and contributing to the increase of the freshwater flow into the system *i.e.*, freshwater becoming a driver in the system. She added that there is also tidal interaction that takes place in estuarine systems and contribute; and with the increase in freshwater, the distribution of species is also impacted. She further indicated they would also submit written comments.

- ◆ **Mr Kgotso Mahlahlane** responded that the Project Team solely focused on the discharge emanating from WWTWs directly into estuarine systems and not on other effects attributed to changing the system from a marine into freshwater environment. He also requested the other Project Team members to weigh in and provide their thoughts.
- ◆ **Ms Tovhowani Nyamande** agreed with **Ms Yolokazi Galada** that the current hydrology scenario is tipping more weight on abstraction and water quality degradation. She added that the Project Team would consider the input/comment.
- ◆ **Ms Ndileka Mohapi** took note of the discussions in the chatbox in terms of shortcomings for the RMGs which the Project Team would have to address but taking cognisance of our mandate as the DWS and others that are shared with our sister Departments.
- ◆ **Mr Yakeen Atwaru** indicated that the use of drones for ground truthing is another form of remote sensing. He added that the Project Team should harness the full capability of remote sensing in the process flow *i.e.*, the use of it to provide time series analysis to monitor the rates of change in relation to degradation and so forth.
- ◆ **Mr Douglas Macfarlane** indicated that there are management plans for estuaries which are often not well implemented, and his understanding is that those plans are meant to set the foundation for both management and restoration actions. He recommended that the RMGs could help to serve to strengthen the implementation of the said plans and draw a clear link.
- ◆ **Ms Ndileka Mohapi** asked for clarity from **Mr Douglas Macfarlane** in terms of which management plans he referred to.
- ◆ **Mr Douglas Macfarlane** responded that he was referring to the Estuarine Management Plans (EMPs) that are supposed to be developed for priority Estuaries.
- ◆ **Ms Ndileka Mohapi** responded that she is aware that the development of the EMPs is a collaborative effort between various Departments, and the Project Team would look into it.
- ◆ **Ms Yolokazi Galada** added to **Mr Douglas Macfarlane's** comment on EMPs and indicated that the plans work more effectively in conjunction with set legislation, for instance, where the rehabilitation of the watercourse is the responsibility of the DWS, the EMPs would state that as such. Therefore, the RMGs would work in parallel and harmony to the EMPs because the plans are informed by existing legislation.
- ◆ **Ms Debbie Muir** provided the following inputs/comments, she indicated that:
 - It is critical for all aquatic water bodies to have a part in the monitoring plan linking to the knowledge hub for CECs because all water bodies in South Africa are affected by CECs, whether it is chemicals or pesticides;
 - There is an integral link between contaminants and impacts on aquatic systems;
 - There is a lot of research done on the changes on aquatic systems, ecosystems including organisms within them;
 - There should be an indicator included within the management plans and the RMGs.
- ◆ **Ms Ndileka Mohapi** welcomed the above inputs/comments.
- ◆ **Mr Douglas Macfarlane** indicated that when it comes to wetlands, there is recognition of the importance of the goods and services as a key informant in terms of what should be restored and the services to be enhanced. He added that in the case of estuaries, there are some of our most important features in terms of the goods and services they provide. He therefore recommended that where applicable, the goods and services should be incorporated into the rehabilitation planning process because understanding the goods and services and how the community interact with the estuary would then inform the restoration actions as well.

- ◆ **Ms Ndileka Mohapi** welcomed the above comment and indicated that the Project Team would take it into consideration should it not be addressed in the upcoming second part of the presentation.

Tea Break

8. Technical Presentation on RMGs for Wetlands Reports

- ◆ **Ms Mmaphefo Thwala** gave the second part of the technical presentation on the Draft Estuarine RMGs Report; covering the following components:
 - Water Quality, Habitat, and Biota impacts; and
 - RMGs for the following characteristics of watercourses:
 - **Water Quality**
 - Scenario 1: Rehabilitation of effluent discharge from WWTWs and Industries.
 - **Habitat**
 - Scenario 1: Control and Management of Alien Invasive Species.
 - Scenario 2: Restoration of excessive habitat removal/alteration.
 - Scenario 3: Estuary Mouth Breaching.
 - **Biota**
 - Scenario 1: Re-establishment of biota migratory routes.
 - Scenario 2: Control and Management measures to prevent overfishing.
- ◆ **Ms Ndileka Mohapi** opened the floor for discussion and the below inputs/comments were received.

Discussions

- ◆ **Ms Yolokazi Galada** referred to slide 39 and had the following inputs/comments:
 - She indicated that consideration was given to identification of facilities situated within 5km-10km radius of the estuary. She enquired whether there is a scientific basis for the distance?
 - She enquired whether pump stations were also considered as part of the direct pollutants to the watercourse?
 - She enquired whether stormwater was considered for areas where there is no proper sewer or reticulation system? She added that stormwater is major impact contributor to water quality.
- ◆ **Ms Mmaphefo Thwala** responded that the distance of 5 to 10 km radius was merely an example one should consider when looking out for facilities that are near the water resource which would be the first obvious sources of pollution. She added that emphasis was also placed on consultation with local authorities to seek local knowledge in terms of other possible sources of pollution *i.e.*, during ground truthing survey, one would detail all the known sources including the diffuse sources of pollution.
- ◆ **Ms Tovhowani Nyamande** added that pump stations and issues around stormwater management raised are covered as part of the overall catchment management of pollution in the Estuarine Report.
- ◆ **Ms Yolokazi Galada** referred to the artificial breaching scenario presented, specifically the mentioned provincial DFFE Office and suggested the following:
 - The current Provincial DFFE captured on the slide as the responsible authority is incorrect and needs to be captured correctly. She indicated that she would provide the correct name in her written inputs/comments;
 - She advised that at times, the National DFFE Office is the responsible and mandated authority for emergency breaching;
 - She indicated that in instances where an estuary is managed by the National DFFE Office, then that office would be the relevant authority for approval of Section 30 of the National Environmental Management Act (NEMA) Regulations;
 - She indicated that consideration should be given to both Section 30 and 30A, and their differences *i.e.*, S30 relates incidents whereas S30A relates to emergencies.

- ◆ **Ms Ndileka Mohapi** welcomed the above comments by **Ms Yolokazi Galada** and requested that she avails herself should the Project Team require assistance in capturing them.
- ◆ **Ms Debbie Muir** referred the members to water quality and the impacts on biota. She provided the following inputs/comments:
 - there has been research done on estuarine biota and their impacts, not on just pesticide, but chemicals as well *i.e.*, PFES and nanoparticles;
 - the data and research done would be shared with the Project Team for inclusion on the list of the impacts;
 - the link to most of the data would be the knowledge hub of the CECs, which has lot of data listed already on the impacts of estuarine biota;
 - the mitigating factors/interventions for the impacts on biota would also be contained/listed within the knowledge hub of CECs;
 - the impacts of CECs and pollution on water bodies is also linked to the National Environmental Management Waste Act (NEM: WA). She indicated that she would share the relevant section of the act with the Project Team in due course.
- ◆ **Ms Ndileka Mohapi** thanked **Ms Debbie Muir** and indicated that her inputs/comments would greatly assist the Project Team to enhance the product. She indicated that the team would await her written inputs so that they could be accurately incorporated into the Estuarine RMGs. She added that the team is still accepting further inputs/comments for which the date of submission would be communicated under the item for way forward.
- ◆ **Ms Debbie Muir** added the following inputs/comments regarding WWTWs:
 - She indicated that the habitats and WWTWs scenarios, particularly the waste discharged from WWTWs would also link to the knowledge hub on the CECs because there has been a lot of research done on Endocrine Disrupting Chemicals (EDCs) emanating from WWTWs;
 - She indicated that unfortunately, EDCs are not tested for WWTWs;
 - She indicated that EDCs are a by-product or transformation product from agriculture and industries - specifically tyre and pharmaceutical industries which lands up in the water;
 - She suggested that Step 2 of Phase 5: Monitoring and Evaluation should be linked to the knowledge hub of CECs for pharmaceutical and industrial chemicals, with regards to endocrine disruptors, because that is going to have a major impact on Phase 5.
- ◆ **Ms Ndileka Mohapi** reiterated that more time would be afforded to the members to provide written inputs/comments. She added that this would also benefit all the other members who could not provide inputs/comments. She asked whether there are any further inputs/comments, or any member that feel they were not afforded an opportunity to speak?
- ◆ **Mr Stephen Midzi** indicated that he has no objection on the document. He confirmed that he is not an expert in estuarine systems. He asked whether going forward the document would provide more details around the mechanisms for breaching or whether that would be discussed in the implementation stages?
- ◆ **Ms Mohapi Ndileka** asked whether the above question was not part of the earlier discussion on the EMPs?
- ◆ **Mr Stephen Midzi** indicated that he does not think so and that it is his first time on the PSC platform.
- ◆ **Ms Mohapi Ndileka** responded that she is neither an expert in estuarine system, but she is of the opinion that the matter could be part of other management plans because the plan usually includes various aspects for implementation.
- ◆ **Mr Stephen Midzi** thanked **Ms Ndileka Mohapi** for the above response.
- ◆ **Ms Yolokazi Galada** confirmed that the Maintenance Management Plan would include all the specifics in terms of water levels, defining factors in terms of when and how to breach.

9.	<p><u>Way Forward</u></p> <ul style="list-style-type: none"> ◆ Ms Ndileka Mohapi opened the floor for Ms Tovhowani Nyamande to provide the way forward. ◆ Ms Tovhowani Nyamande summarized the way forward as follows: <ul style="list-style-type: none"> • She indicated the way forward as per the agreement in the meeting is to extend the PSC members inputs/comments due date by two (2) weeks with the new due date for submission being on 05 September 2023; • She indicated the next PSC Meeting would cover Lakes and Dams and would be communicated in due course by the Project Team and convened in approximately three months' time.
10.	<p><u>Closing Remarks</u></p> <ul style="list-style-type: none"> ◆ Ms Ndileka Mohapi thanked all the members for making time to join the meeting and sharing knowledge. ◆ She reiterated that all members would be advised of the next Steering Committee Meeting. ◆ She reminded all the members to please communicate back to their institutions and organizations about the project because there are units within our organizations that might add value to the process. She also encouraged the members to share the document with their colleagues for further inputs and to enhance the product. ◆ She once again thanked everyone for their participation and declared the meeting closed.

ii) Meeting Action List

No.	Action(s)	Responsible Official(s)	Progress to date
1.	PSC 2 Meeting Action 4: The Project Team to onboard a representative from the Department of Cooperative Governance and Traditional Affairs (COGTA).	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done. Onboarded two members from Municipal Infrastructure Support Agent (MISA) which is the implementing arm of COGTA.
2.	Ms Ndileka Mohapi encouraged the Project Team to consult with the DWS unit that focuses on by-laws.	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done The team liaised with Mr Makulani Tshilidzi .
3.	The Project Team to share presentations on the website.	Mr Kgotso Mahlahlane	Done
4.	Ms Debbie Muir suggested the following to the team: 4.1. To share the report Estuarine RMGs Report with her 4.2. The addition of the Farm Feeds, Fertilizers, Agricultural Remedies and Stock Remedies Act, (Act 36 of 1947) to the legislation section of the Estuarine RMGs to cater for pesticides and chemical residues. 4.3. Contaminants of Emerging Concern (CECs) with regards to transformation products, residues, metabolites, and their link to the knowledge hub. 4.4. Reporting on the contamination of water resources and SDG 15 towards 2030, perhaps looking at contamination of water and the monitoring thereof. 4.5. Monitoring and Evaluation should be linked to the knowledge hub of CECs for pharmaceutical and industrial chemicals, including endocrine disruptors emanating from WWTWs.	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done Done Done Done Done
5.	Mr Matome Makwela suggested the onboarding of a DMRE representative.	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Ongoing Awaiting Mr Aron Kharivhe to complete his Reply Sheet.
6.	Dr Heidi van Deventer suggested the inclusion of the reporting and documenting of the extent and localities of any interventions undertaken and the desired state under Phase 5 (Monitoring and Evaluation) as part of the Target 2 for Global Biodiversity Framework (GBF).	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done
7.	Ms Yolokazi Galada suggested the following: 7.1. Consideration of the increase in baseflow whereby there is an increase in freshwater because of wastewater treatment works under the Hydrology Scenario. 7.2. Consideration to be given to both Section 30 and 30A for breaching activities. 7.3. Correct name for Provincial DFFE as the responsible authority	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done Done Done
8.	Mr Douglas Macfarlane suggested the alignment of the guidelines to the Estuary Management Plans.	Mr Kgotso Mahlahlane and Ms Mmaphefo Thwala	Done

iii) Issues and Responses from Meeting Chatbox

No.	Issues Raised	Raised by	Response	Progress to date
1.	The full title for the relevant unit with the DFFE that deals with contaminants of emerging concern (CECs):	Ms Debbie Muir	Ms Tovhowani Nyamande noted the full title.	Done
	<ul style="list-style-type: none"> Environmental Programmes, Operational Support & Planning, Pesticide Risk Manager, legal compliance, and aquatic weeds (full title). 		Ms Tovhowani Nyamande noted the monitoring of the said products and their links to reporting frameworks.	Done
	<ul style="list-style-type: none"> Pesticide residues monitoring, transformation products and residues in estuaries should be noted for monitoring including links to SDG's and international frameworks? Peatland wetlands link to carbon sequestration and carbon cycle and UNFCCC? 		Ms Tovhowani Nyamande noted the monitoring of the said products and their links to reporting frameworks.	Done. It is noted that peatland plays an important role in the trapping of carbon from the atmosphere, providing a net-cooling effect that helps to mitigate the climate crisis. This important phenomenon has been reflected in the Wetland RMGs under the section for ecosystems goods and services.
2.	Request for Ms Tumelo Kgafane to be included in the distribution list for future meetings.	Mr Norman Nokeri	Ms Tovhowani Nyamande , noted the request.	Done
3.	Please consider the Western Cape Biodiversity Act No. 6 of 2021	Ms Kate Snaddon	Ms Tovhowani Nyamande , noted the issue.	Done
4.	Alien and Invasive Species should be listed under NEM:BA	Ms Debbie Muir	Ms Tovhowani Nyamande , noted the issue.	Done
5.	Please include National Environmental Management: Waste Act	Ms Debbie Muir	Ms Tovhowani Nyamande , noted the issue.	Done
6.	Deeds Registries Act 47 of 1937 may be applicable as well when determining restrictions on actions.	Mr Kobus Fell	Ms Tovhowani Nyamande , noted the additional legislation.	Done
7.	Target 2: Ensure that by 2030 at least 30% of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity. https://www.cbd.int/gbf/targets/	Dr Heidi van Deventer	Ms Tovhowani Nyamande , noted the SDG reporting target.	Done
8.	When estuary mouths close, it can naturally turn into a predominantly freshwater phase	Dr Heidi van Deventer	Ms Tovhowani Nyamande , noted the issue.	Done
9.	Should there not be differentiated between inland and coastal estuaries?	Mr Kobus Fell	Mr Sibusiso Majola , indicated that all estuaries are coastal.	Done

10.	"Some estuaries not located near oceans. These freshwater estuaries are created when a river flows into a freshwater lake. Although freshwater estuaries are not brackish, the chemical composition of lake and river water is distinct. River water is warmer and less dense than lake water. "May we then accept that this is only applicable to coastal estuaries and deal with inland estuaries when addressing dams?"		Ms Tovhowani Nyamande responded that the report considered the Estuary definition/description under the National Water Act mandate. Ms Yolokazi Galada added that the report also covers all the different categories of estuaries including estuarine lakes as per the National Biodiversity Assessment of 2019.	Done
11.	Estuary Management Plans are supposed to be the key documents informing management and restoration requirements in estuaries. How are these plans used to inform the planning process?	Mr Douglas McFarlane	Ms Tovhowani Nyamande , noted the issue.	Done A recommendation has been made that EMPs should be put in place to ensure estuary-specific management targets as each estuary has unique characteristics.
12.	Sentinel is better than google earth and also free.	Ms Debbie Muir	Ms Tovhowani Nyamande , noted the issue.	Done
13.	In my comments on the report I am suggesting higher spatial resolution (<10 m) because we found S2 at 10m insufficient for detecting all the blue carbon habitat changes. GIZ report to DFFE with findings. Please accept my apologies, I had another meeting scheduled prior to this one. All the best team and thanks for the opportunity to contribute.	Dr Heidi van Deventer	Ms Tovhowani Nyamande , noted the issue.	Done
14.	The National Ports Act is another legislation to be considered for harbors.	Ms Yolokazi Galada	Nyamande Tovhowani , noted the additional legislation.	Done
15.	I will submit comments to the team later today. I do suggest that the estuary plan should refer to the River Guidelines document for addressing upstream issues.	Dr Liz Day	Nyamande Tovhowani , noted the issue.	Ongoing The team still awaiting inputs on the Estuarine Report from Dr Liz Day .
16.	Include contaminants of emerging concern and knowledge hub.	Ms Debbie Muir	Nyamande Tovhowani , noted the issue.	Done
17.	What if it contains hazardous contaminants? It would then need to enter hazardous waste stream under NEM: WA.	Ms Debbie Muir	Nyamande Tovhowani , noted the issue.	Done. NEM: WA included as part of the legislative framework and linked to waste sources in the context of the report.
18.	Step 3 - consult DFFE	Ms Debbie Muir	Nyamande Tovhowani , noted the issue.	Done
19.	I suggest having a look at the Climate Change Bill (not an Act as yet) as relevant legislation / principles.	Ms Kate Snaddon	Nyamande Tovhowani , noted the additional legislation.	Done Included under the overarching legislation section of the report.
20.	Biocontrol and chemical needs to be reworded.	Ms Debbie Muir	Nyamande Tovhowani , noted the issue.	Done

21.	<p>Climate change impacts referred in various slides. But the presentation does not cover interface between this work and climate change impacts.</p> <p>The link to NEMA is appreciated. However, the climate change nexus should be included (even if brief) to ensure the information generated is used by all stakeholders. For e.g. this may be part of the planning and assessment slide.</p>	Mr Dhiraj Rama	<p>Nyamande Tovhowani responded as follows: Thank you for the "Interface" pointers. I appreciate the indication of phases to consider.</p>	Done. Climate interface covered in section 3.3.2.3 and 3.4.2.5 of the report.
22.	With regards to the 10-15 km range what determines the start and end of an estuary?	Mr Kobus Fell	Nyamande Tovhowani , noted the issue. Ms Mmaphefo Thwala explained during the meeting that the distance was provided as an example.	Done
23.	The Estuarine Functional Zone has been mapped and documented for all estuaries under SANBI BGIS.	Ms Yolokazi Galada	Mr Sibusiso Majola , added that EFZ is a 5m contour line around the estuary.	Done
24.	Step 2 we can also look at agricultural return flows.	Ms Tembisa Torch	Nyamande Tovhowani , noted the issue.	Done
25.	Many thanks, I have also just finalized the HHP list for SA & SADC and can give you the list of pesticides impacting water bodies.	Ms Debbie Muir	Nyamande Tovhowani , noted the issue.	Ongoing Still awaiting inputs from Ms Debbie Muir .
26.	<p>An e-mail received from Anisha Dayaram at SANBI today:</p> <p>"...the Estuarine classification and mapping page has now been linked to the SA-NECS page on BGIS: https://bgis.sanbi.org/Projects/Detail/1237." South African National Ecosystem Classification System (SA-NECS) - Biodiversity BGIS.</p>	Dr Heidi van Deventer	<p>Mr Sibusiso Majola asked if this report form part of the NBA? If yes, it will definitely be stored in their website (mentioned above). Dr Heidi van Deventer agreed that they are preparing this for the next NBA 2024/5 and will deliver to SANBI, but if done earlier, this could be helpful to make it available earlier.</p> <p>Mr Sibusiso Majola responded that it would definitely assist. Please also consider a shift in the EFZ from 5m to 10m, especially in the KZN region.</p> <p>Dr Heidi van Deventer indicated that they are compiling both 5 and 10 m to research the prevalence of blue carbon habitats between these height values across the country, so will share. like 1.</p>	Done
27.	We (me, Lara and Groen Sebenza intern) are busy generating this 5 mamsl contour line for the country and have reported the missing areas at the estuaries to NGI.	Dr Heidi van Deventer	Nyamande Tovhowani , noted the issue.	Done

<p>Awaiting their response from 2 Aug 2023. Once compiled, we can share the shapefile and kml for use by all. Perhaps SANBI can store this on the same page mentioned above.</p>			
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<p>Compiled by:</p>  <hr/> <p>Mr Kgotso Mahlahlane (Project Coordinator) Production Scientist: SDS Department of Water and Sanitation Date: 24 November 2023</p>	<p>Approved by:</p>  <hr/> <p>Ms Tovhowani Nyamande (Project Leader) Director: SDS Department of Water and Sanitation Date: 27 November 2023</p>
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Appendix A

Table 1: List of Attendees and Apologies

List of Attendees	Organization
1. Ms Ndileka Mohapi (Chairperson)	DWS, Water Ecosystems Management
2. Ms Tovhowani Nyamande (Project Leader)	DWS, Sources Directed Studies
3. Ms Mmaphefo Thwala (Project Manager)	DWS, Sources Directed Studies
4. Mr Kgotso Mahlahlane (Project Coordinator)	DWS, Sources Directed Studies
5. Mr Matome Makwela	Minerals Council of South Africa
6. Ms Kate Snaddon	Freshwater Consulting
7. Mr Kwazikwakhe Majola	DWS, Reserve Determination: Groundwater
8. Mr Samkele Mnyango	DWS, Sources Directed Studies
9. Mr Yakeen Atwaru	DWS, Reserve Determination
10. Mr Rendani Ndou	DWS, Resource Protection and Waste
11. Ms Dikeledi Baloyi	DWS, Resource Protection and Waste
12. Mr Douglas Macfarlane	Eco-Pulse Environmental Consulting Services
13. Ms Jabulile Sindane	DWS, Resource Quality Information Services
14. Mr Sibusiso Majola	DWS, Resource Quality Information Services
15. Ms Jenifer Zungu	South African National Biodiversity Institute
16. Mr Moses Ratshiedana	South African Local Government Association
17. Ms Mahadi Mofokeng	DWS, Specialized Unit Water Resource Policy Strategy and Evaluation
18. Ms Thembisa Torch	DWS, Berg Olifants Proto CMA
19. Ms Esther Lekalake	DWS, Water Resource Classification
20. Dr Mampolelo Photolo	DWS, Resource Quality Information Service
21. Mr Elijah Mogakabe	DWS, Resource Quality Information Services
22. Mr Pieter Viljoen	DWS, Water Resource Management Planning
23. Ms Nsovo Mhlarhi	DWS, Resource Quality Information Services
24. Ms Thembela Bushula	Breede-Gouritz CMA
25. Dr Christa Thirion	DWS, Resource Quality Information Services
26. Dr Wietsche Roets	DWS, Water Abstraction and Instream-Use
27. Dr Yolandi Schoeman	University of the Free State
28. Mr Lindelani Lalumbe	DWS, Surface and Groundwater Information
29. Mr Sipiwo Xongo	DWS, Western Cape, Berg-Olifants Proto-CMA
30. Mr Kobus Fell	National Water Monitoring and Map Forum
31. Ms Bridget Nematodzi	Minerals Council of South Africa
32. Mr Norman Nokeri	Lepelle Northern Water
33. Ms Ledile Jeanette Nyama	DWS, Gauteng, Vaal Orange Proto-CMA
34. Mr Washington Tunha	DWS, Implementation Support
35. Dr Heidi van Deventer	Council for Scientific and Industrial Research
36. Dr Elizabeth Day	Liz Day Consulting (Pty) Ltd
37. Dr Chantel Petersen	City of Cape Town
38. Ms Debbie Muir	Department of Forestry Fisheries and the Environment
39. Mr Robert Siebritz	City Of Cape Town
40. Mr Rodney February	World Wide Fund for Nature
41. Mr Pule Makena	City of Ekurhuleni Metropolitan Municipality
42. Mr Reginal Mabalane	Mineral Council of South Africa
43. Mr Stephen Midzi	South African National Parks
44. Ms Yolokazi Galada	Department of Forestry, Fisheries, and the Environment
45. Mr Sbu Dladla	Institute of Landscape Architects of South Africa
46. Mr Vhangani Silima	Rand Water
47. Mr Michael Munzhelele	DWS, Water Use Licensing
48. Ms Tumelo Kgafane	Lepelle Northern Water
49. Ms Seko Morongwa	Compliance Monitoring & Enforcement
50. Mr Dhiraj Rama	Association of Cementitious Material Producers
51. Ms Phumelele Sokhulu	Umgeni Water
52. Mr Pieter Ackerman	DWS, Water Abstraction and Instream-Use
53. Mr Siyabonga Buthelezi	DWS, Kwazulu Natal Regional Office
54. Ms Keamogetse Molefe	DWS, Free State Regional Office

Apologies Rendered	Organization
1. Mr Phil McLean	Department of Environmental Affairs and Development (DEA): Western Cape
2. Mr Donovan Gillman	Institute for Landscape Architecture in South Africa
3. Ms Jacqueline Jay	Department of Forestry Fisheries and the Environment
4. Ms Adaora Okonkwo	DWS, Water Resource Classification
5. Mr Musawenkosi Kunene	DWS, Specialized Unit Water Resource Policy Strategy and Evaluation
6. Ms Nolusindiso Jafta	DWS, Water Resource Classification
7. Ms Lebogang Matlala	DWS, Water Resource Classification
8. Ms Anet Muir	DWS, Water Use Compliance & Enforcement
9. Ms Kim Hodgson	Umgeni Water
10. Ms Rachel Mpe	DWS, North-West, Water Resource Support
11. Mr Lubabalo Luyaba	South African Local Government Association
12. Mr Mbulelo Dopolo	Department of Forestry Fisheries and the Environment