



**REHABILITATION MANAGEMENT GUIDELINES FOR WATER RESOURCES**

**PROJECT STEERING COMMITTEE (PSC) MEETING 02 MINUTES**

**Date:** Friday, 19 May 2023

**Venue:** MS Teams (Virtual)

**Time:** 10:00 – 13:00

The below PSC Meeting 02 minutes are subdivided into three (3) parts, namely, i) Meeting Proceedings, ii) Issues and Responses from the Meeting Chat & iii) Meeting Actions

**(i) PSC Meeting 02 Meeting Proceedings**

Item No.	Discussion
1.	<p><b><u>Welcome and Introduction</u></b></p> <ul style="list-style-type: none"><li>◆ The Chairperson, <b>Ms Ndileka Mohapi</b>, opened the meeting, welcomed all the attendees, and thanked them for their attendance.</li><li>◆ She highlighted that this is the second Project Steering Committee (PSC) Meeting for the Rehabilitation Management Guidelines (RMGs) and explained that we last held the inaugural meeting during November 2021. She added that this is one of the projects that the Department of Water and Sanitation (DWS) is undertaking internally using the expertise of scientist within the Department.</li><li>◆ <b>Ms Ndileka Mohapi</b> gave all the attendees an opportunity to introduce themselves and indicate their respective organizations.</li></ul>
2.	<p><b><u>Attendance and Apologies</u></b></p> <p>Please refer to Table 1 under <b>Appendix A</b> for list of attendees and apologies rendered.</p> <ul style="list-style-type: none"><li>◆ <b>Mr Sipiwo Xongo</b> enquired why his colleagues from the DWS Water Resource Support in the Western Cape were not in the meeting as they form a critical part of the PSC?</li><li>◆ <b>Ms Ndileka Mohapi</b> responded that the list of colleagues invited by the Project Team is lengthy and <b>Mr Sipiwo Xongo</b> should discuss the matter with colleagues outside the meeting.</li><li>◆ <b>Ms Ndileka Mohapi</b> later confirmed that <b>Ms Melissa Lintnaar-Strauss</b> from the DWS: Western Cape, Water Resource Protection was present in the meeting.</li></ul>
3.	<p><b><u>Acceptance of Agenda</u></b></p> <ul style="list-style-type: none"><li>◆ The agenda of the meeting was adopted with no additions.</li></ul>
4.	<p><b><u>Approval of Minutes of Previous Meeting</u></b></p> <ul style="list-style-type: none"><li>◆ The minutes of the previous meeting were approved with minor corrections. The corrections pertained to the full name of World Wide Fund (WWF) for Nature.</li><li>◆ <b>Ms Ndileka Mohapi</b> requested the Project Team to separate the actual minutes from action list in all future meeting minutes.</li></ul>

	<ul style="list-style-type: none"> <li>◆ <b>Mr Bonani Madikizela</b> indicated that he was not present at the previous meeting, but he observed from the minutes that there was an issue around the implementors of the guidelines once they have been developed. He made specific reference to representatives from local municipalities and asked if they are already on board to contribute to the project?</li> <li>◆ <b>Ms Ndileka Mohapi</b> requested to respond to the above question once the members have moved for the adoption of the minutes. She added that she would respond to the question depending on whether the team has included this matter under the action list.</li> <li>◆ <b>Mr Phil McLean</b> indicated that <b>Dr Klaudia Schachtschneider</b> is no longer working for WWF and would assist the team in securing another representative from the organization.</li> <li>◆ <b>Ms Ndileka Mohapi</b> suggested the team to continue sourcing a representative from the South African Institute for Aquatic Biodiversity (SAIAB) because they have a different responsibility from South African Council for the Landscape Architectural Profession (SACLAP) and Institute for Landscape Architecture in South Africa (ILASA).</li> <li>◆ <b>Mr Bonani Madikizela</b> indicated that he synthesized the earlier discussions around the regulations and implementation. <ul style="list-style-type: none"> <li>● His questions were as follows: <ul style="list-style-type: none"> <li>○ Whether the implementers would be onboarded at a later stage?</li> <li>○ Whether this would be fair to them, if brought in at a later stage?</li> </ul> </li> <li>● He also added that the team must consider the fact that they might reject the invitation if it comes at a later stage; and</li> <li>● Further suggested that considering the costly budget of implementation, especially restoration, implementors should be brought into the project during the development stages of the guidelines because of the volume of work that needs to be put in at that level.</li> </ul> </li> <li>◆ <b>Ms Ndileka Mohapi</b> asked who of the implementors should the team consider because there are many municipalities in the country?</li> <li>◆ <b>Mr Bonani Madikizela</b> suggested that the team should start with South African Local Government Association (SALGA) as it is the institution that represents these municipalities. He also suggested City of Tshwane (CoT) and City of Johannesburg (CoJ) Metropolitan Municipalities as the second institutions that can form part of the representation because the first set of the Rehabilitation Guidelines that were developed by Water Research Commission (WRC) were first tested with them.</li> <li>◆ <b>Ms Ndileka Mohapi</b> indicated that the above suggestion would be considered by the Project Management Team.</li> </ul>
5.	<p><b><u>Meeting Objectives and Project Progress</u></b></p> <ul style="list-style-type: none"> <li>◆ <b>Ms Tovhowani Nyamande</b> gave a presentation on the Meeting Objectives and Project Progress.</li> <li>◆ <b>Ms Ndileka Mohapi</b> opened the floor for discussions following the presentation given and no inputs/comments were received.</li> </ul>
6.	<p><b><u>Technical Presentation on RMGs for Rivers Reports</u></b></p> <ul style="list-style-type: none"> <li>◆ <b>Mr Kgotso Mahlahlane</b> gave the first part of the technical presentation on the Draft RMGs for Rivers Report. He covered some of the following components: <ul style="list-style-type: none"> <li>● Water Resource Themes;</li> <li>● Interlinkages between drivers and responses;</li> <li>● Guiding Principles for Rehabilitation;</li> <li>● Rehabilitation Approach;</li> <li>● Rehabilitation Management Guidelines Scenarios for Rivers and Wetlands;</li> <li>● Components discussed: Hydrology, Geomorphology, Water Quality, Habitat and Biota Impacts.</li> </ul> </li> </ul>

*\*A disclaimer was given that certain scenarios are applicable to both Rivers and Wetlands. As such, if they were covered under Rivers, they would not be repeated under Wetlands to avoid duplication. These scenarios are all denoted by an asterisk (\*) in the current minutes both under the Rivers and Wetlands Sections for your noting.*

- ◆ **Ms Ndileka Mohapi** opened the floor for discussion after the first part of the presentation and the following inputs/comments were received.

### Discussions

- ◆ **Mr Bonani Madikizela** expressed his appreciation for the work done by the team. He further asked whether consideration was given to by-laws as far as legislation is concerned especially when it comes to municipalities.
- ◆ **Mr Kgotso Mahlahlane** responded that the team did consider by-laws to a certain extent, especially in relation to management of land use activities. He also added that this matter was raised internally in the DWS from the previous meetings.
- ◆ **Mr Bonani Madikizela** indicated that he went through the reports and did not observe anything relating to by-laws. He indicated that he would have a conversation with **Mr Kgotso Mahlahlane** outside of the meeting in terms of including this in the reports/guidelines.
- ◆ **Ms Ndileka Mohapi** responded that the hierarchy in terms of the various legislation and that by-laws emanate from the national level as the different laws are set out by the different National Departments. She explained that National Environmental Management Act (NEMA) is the overarching act in terms of environmental related issues followed by the National Water Act (NWA). She added that there are various sections with the DWS that scrutinize by-laws to ensure that there is adherence to our national laws.
- ◆ **Mr Bonani Madikizela** indicated that WRC is working on a project for the improvement of landscapes (ecological infrastructure) and would like the cooperation of the DWS in this regard. He added that in terms of sedimentation which links to geomorphology, there is National Siltation Management Programme that is underway led by **Mr Leonardo Manus** from the DWS which focuses on the sedimentation issues from the wider catchment instead of only at the resource. He asked if there is any linkage between the RMGs Project and the one mentioned above.
- ◆ **Ms Ndileka Mohapi** indicated that she is not sure of the linkages, but she has an understanding of their scope of work which focuses on the larger scale issue of siltation that affects dams. She supported **Mr Bonani Madikizela** to a particular extent because the build-up of siltation in dams tends to affect the holding capacity. She added that the focus of the team is mainly around the issues of clearance of Alien Invasive Species. She indicated that the two reports that have been circulated for comments do not refer to dams per se.
- ◆ **Mr Bonani Madikizela** was in support and indicated that the Lakes, Dams and Estuaries would be dealt with at a later stage as per the presentation given by **Ms Tovhowani Nyamande**. He requested the team to consider all the efforts that are done around the same topic when the said water resources are dealt with.
- ◆ **Ms Ndileka Mohapi** assured **Mr Bonani Madikizela** that communication would be initiated with the relevant colleagues when dealing with dams especially because of the extent of the impact attributed to the various sizes of dams and the management thereof.
- ◆ **Ms Esmeralda Ramburran** indicated that her points follow on from the ones made by **Mr Bonani Madikizela**. She provided the following inputs/comments:
  - She commented on water quality component and suggested the bringing together of rehabilitation work that must be achieved with infrastructure and/or non-infrastructure because Wastewater

	<p>Treatment Works (WWTWs) were highlighted together with Acid Mine Drainage (AMD) as the major contributors to pollution;</p> <ul style="list-style-type: none"> <li>• A lot of the pollution that comes into waterways and rivers are often en route to the WWTWs;</li> <li>• Sewer networks flow and follow the natural gradient and contours of the natural environment which are along riverbanks and adjacent to watercourses, which naturally result in large implications for water quality;</li> <li>• The component of industries is missing. Industries have a permit from the local municipalities <i>i.e.</i>, a trade effluent permit to discharge effluent into the sewer networks;</li> <li>• She suggested that industries and pollution through the sewer and sanitation system should be added as a component. She explained that this is critical because the DWS should accommodate the complexities of water quality issues in their entirety;</li> <li>• There is another level of monitoring that can happen through the compliance with trade effluent permits and any licenses and/or conditions that the DWS issues in terms of industries;</li> <li>• Industries are a major contributor to pollution either directly into river systems or indirectly through the sanitation network and this needs to be accounted for;</li> <li>• There is also an opportunity for local municipalities to link to the Water and Sanitation Master Plans and develop Maintenance Management Plans for these systems since they affect rehabilitation, authorization processes and legal compliance.</li> </ul> <p>◆ <b>Ms Ndileka Mohapi</b> indicated that the inputs/comments are well received. She further indicated that perhaps the category would be investigated in order to be subdivided appropriately because of the following two reasons:</p> <ul style="list-style-type: none"> <li>• Firstly, her understanding is that there are industries without permission to discharge into a municipal system and bears the responsibility to ensure accountability.</li> <li>• Secondly, there are industries in possession of permits to discharge with a responsibility to meet the standards as set in the license by the DWS to ensure compliance.</li> </ul> <p>◆ <b>Ms Esmeralda Ramburran</b> indicated that she is aware there are duplications in terms of the Rivers vs. Wetlands Scenarios. She advised the team to clearly state the duplication when the documents are ready for publication to avoid any misinterpretation during the implementation of the guidelines.</p> <p>◆ <b>Ms Ndileka Mohapi</b> requested <b>Ms Esmeralda Ramburran</b> to reserve her comments on the Wetlands for later once the presentation on the topic has been delivered. She provided the following inputs/comments as a way forward before allowing the team to delve into the Wetlands Presentation:</p> <ul style="list-style-type: none"> <li>• She would provide guidance to the team in terms of formulating the guidelines <i>i.e.</i>, through a workshop, brainstorming or discussion session that would entirely focus on some of the municipal waste streams and the management thereof;</li> <li>• She would through a discussion with the team get a better understanding of the challenges to document informed guidelines. She added that it is a critical component which is exacerbated by the various challenges within the municipalities which ultimately causes inefficiencies;</li> <li>• She acknowledged that this approach might potentially affect the timelines of the project, but the advantage is that the guidelines would be comprehensive and add value once completed.</li> </ul>
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*Tea Break*

<p>8.</p>	<p><a href="#"><u>Technical Presentation on RMGs for Wetlands Reports</u></a></p> <ul style="list-style-type: none"> <li>◆ <b>Ms Mmaphefo Thwala</b> gave the second part of the technical presentation on the Draft RMGs for Wetlands Report. She covered the following components: <ul style="list-style-type: none"> <li>• Hydrology, Geomorphology, Water Quality, Habitat and Biota Impacts.</li> </ul> </li> <li>◆ <b>Ms Ndileka Mohapi</b> opened the floor for discussion after the second part of the presentation and the following inputs/comments were received.</li> </ul> <p><a href="#"><u>Discussions</u></a></p>
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- ◆ **Mr Bonani Madikizela** complimented the team for the great work thus far. He indicated that there is one type of wetland system that tends to behave different from the ones that have been presented on. He made the following inputs/comments regarding the matter:
  - The wetland system type is known as peatlands, which is missing in the Wetlands Report and presentation. He requested the team to include this wetland type in the guidelines;
  - He added that the WRC has completed project on guidelines that focuses on how to deal with the rehabilitation of peatlands once uncontrolled veld fire which might have ignited the peatlands has been extinguished;
  - He further indicated that the DWS has a primary role in the development of the said guidelines which should be made available by WRC in June 2023 on the website. He requested this work to be reflected on the current RMGs.
  
- ◆ **Mr Bonani Madikizela** made the additional inputs/comments regarding the use of drones mentioned on slide 83:
  - He indicated he is in support of innovative technology but there might be a possible challenge with the use of drones associated with access to private property;
  - He indicated that there are certain people within the water sector who are of the opinion that the use of drones is illegal;
  - He requested the colleagues to advise on whether to remove them to avoid legal implications or further investigate with our respective legal teams.
  
- ◆ **Ms Ndileka Mohapi** welcomed the suggestion for the team to look further into the peatland wetlands. She however emphasized the fact that several wetland types such as hillslope seepage, channelled/unchannelled valley bottom and floodplains, which have been comprehensively covered in the presentation and should not be overlooked.
  
- ◆ **Ms Ndileka Mohapi** suggested that we put aside the legal aspects and move forward with the recommendation to use drones and demonstrate our technological application. She further alluded to an example of the use of this technology that she experienced a year ago on site for a construction project of building units to cater for contractors who are going to work on the development of the Lesotho Highlands Phase II Project. Her intention for mentioning this was to demonstrate how the rest of the world is advancing technologically.
  
- ◆ **Mr Bonani Madikizela** noted the above suggestion of moving forward with the indication of the use of drones but highlighted the risk factor that comes with it.
  
- ◆ **Mr Sipiwo Xongo** commented on the authorization process pertaining to rehabilitation activities for both Rivers and Wetlands Reports. He made the following inputs/comments:
  - He asked whether the team is looking at establishing a special dispensation to authorize these activities?
  - He explained that his understanding is that the processing of the normal Water Use License Applications (WULAs) is cumbersome;
  - Hence his question on whether there would be a special process that would be developed to cater for the volumes of applications for these rehabilitation activities/interventions especially looking at the fact that there is a reference to site-specific conditions that the person(s) carrying out the rehabilitation work needs to take into account;
  - He qualified his above points using the current General Authorization (GA) process followed for Section 21(c) and (i) water uses wherein there is *Table D2* that specifically caters for all state-owned companies intending to undertake rehabilitation activities;
  - He indicated that it is stated within these legal documents that companies or person(s) do not have to apply for authorization and that only registration forms should be completed and submitted to the DWS;
  - He concluded by asking whether there would perhaps be such a similar approach for the current RMGs.
  
- ◆ **Ms Ndileka Mohapi** indicated that there are few factors that need to be taken into account. The factors are two-fold and as follows:

- Firstly, while the DWS is assisting the Department of Forestry, Fisheries, and the Environment (DFFE) in terms of issues of regulation, particularly on wetlands and Water Resource Classification, the responsibility of rehabilitation remains solely with DFFE through their implementing arm which is the South African National Biodiversity Institute (SANBI);
- Secondly, she explained that she is battling to comprehend the earlier mentioned special dispensation to be used to regulate especially because the jurisdiction of the DWS lies within the water space.

◆ **Mr Sipiwo Xongo** substantiated his question by referring the colleagues to various slides talking to Environmental Authorization (EA), GA and WULA that must be lodged and approved prior to executing any rehabilitation activities/interventions. He indicated it is his understanding from the presentation that the implementing agent *i.e.*, DFFE through SANBI would at one stage be required to apply for authorization for their respective rehabilitation activities which triggers various Section 21 water uses and it is this reason that informed his question.

◆ **Ms Ndileka Mohapi** indicated that the authorization process would be applicable to the person(s) intending to carry out rehabilitation work. She mentioned that in most instances, she does not recall a situation whereby the DWS reached an extent of having to apply for authorization. She acknowledged that she might be missing out on something and therefore requested the colleagues to provide further clarity.

◆ **Ms Mmaphefo Thwala** referred colleagues to the earlier slides talking to the various Section 21 water uses that are triggered depending on the intended activities. She indicated that activities and the authorization thereof are treated on a case-by-case basis depending on the site-specific conditions and the extent of rehabilitation envisaged. She added that the steps for authorization were adopted from the authorization process which have been developed within the DWS by the colleagues from the Licensing Unit. She requested through the Chairperson that the colleagues from Licensing should weigh into the matter and share their experience.

◆ **Ms Ndileka Mohapi** emphasised that she has never encountered a case whereby the application for EA, GA and WULA was applicable to the processes of rehabilitation. She acknowledged again that she might be missing out on something and requested colleagues to re-visit the issue. She indicated that she tends not to understand until someone is able to explain in a manner that is comprehensible and links directly to the work we are doing as DWS *i.e.*, whereby as colleagues we are able to reach those levels of authorizations for rehabilitation. She expressed her undertaking pertinent to wetland rehabilitation and issues around the Environmental Impact Assessments (EIAs), which is more associated with development and not big infrastructure activities.

◆ **Ms Elkerine Rossouw** supported **Ms Ndileka Mohapi** but explained that in some instances rehabilitation of wetlands requires massive built infrastructure and the associated construction activities which triggers certain water uses that must be applied for through the WULA process. She added that it is correct to assume that rehabilitation activities and the authorization thereof should be treated on a case-by-case basis.

◆ **Ms Ndileka Mohapi** requested **Ms Elkerine Rossouw** to expand on her example because there is a need to understand at what stage the License would need to be factored in.

◆ **Ms Elkerine Rossouw** provided her practical example as follows:

- She used a case study relevant to South Africa whereby peatland wetlands were severely degraded and required built infrastructure to address the sedimentation and gully erosion issues noted;
- The aim of rehabilitation was to reinstate the wetlands to their pre-impact state as far as the original flow regime was concerned.

◆ **Ms Elkerine Rossouw's** second comment pertained to the mention of the Environmental Assessment Practitioner (EAP) who should evaluate, assess, and monitor the conditions of the water resources once the rehabilitation interventions have been implemented. She further provided the following inputs/comments regarding the matter:

- She requested the team to consider adopting a list similar to the one developed by the DWS Dam Safety Office for all approved and registered scientist with the South African Council for Natural Scientific Professions (SACNASP);
  - She indicated that these EAP would be selected from the said list;
  - She added that there are various specialists within the water sector ranging from Freshwater to Habitat Specialists. In this project the relevant specialists would be River or Wetland Specialists that would then be selected accordingly from the list in question.
- ◆ **Ms Ndileka Mohapi** asked who would be responsible for the approved SACNASP list and where would it reside?
  - ◆ **Ms Elkerine Rossouw** responded that the National Government Departments would be responsible for the list, and it would also reside within these departments.
  - ◆ **Ms Ndileka Mohapi** reiterated her previous points on differentiating between roles and responsibilities, especially between DWS, DFFE and/or SANBI. She indicated that while the list of dams in question may be our core responsibility, the whole issue around rehabilitation of wetlands should reside within the DFFE and/or SANBI. She asked who would maintain the suggested list?
  - ◆ **Ms Elkerine Rossouw** indicated provincial DFFE officials would maintain the list on a regular basis.
  - ◆ **Ms Ndileka Mohapi** cautioned the colleagues that they should not take other responsibilities which do not belong to the DWS.
  - ◆ **Ms Elkerine Rossouw** requested this matter to be considered especially because it would promote readily available and qualified specialists as well as to promote cooperative governance. She added that such a list is readily available in Western Cape.
  - ◆ **Ms Ndileka Mohapi** requested the colleagues to revert to the issue of authorization.
  - ◆ **Dr Wietsche Roets** raised two points on authorization as follows:
    - The first one being that if the executor for the wetland rehabilitation is the DWS, then no authorization process should be followed because we cannot as a department be a 'player' and a 'referee' at the same time;
    - He referred to a letter that was circulated years ago by our then Director General which stated that we cannot authorize ourselves in the case of the Working for Wetlands Program;
    - He indicated that there is a current General Authorization – GA 1198 that authorizes the Working for Wetlands Program and as a result, the DFFE does its submission in terms of that.
    - He added that this is the current approach that is followed by DFFE in order to obtain authorization.
  - ◆ **Ms Ndileka Mohapi** asked whether the DWS has ever rehabilitated a wetland? Or whether this has always been the sole responsibility of the DFFE?
  - ◆ **Dr Wietsche Roets** indicated that he is not aware of any event whereby the DWS has rehabilitated a wetland.
  - ◆ **Ms Ndileka Mohapi** indicated that this is the reason for repeatedly cautioning the colleagues not to blur the lines between the responsibilities of the DWS and DFFE.
  - ◆ **Dr Wietsche Roets** supported the above point made by **Ms Ndileka Mohapi**. He proceeded to raise his second point as follows:
    - The second comment was in relation to any other person(s) besides the DWS and/or DFFE/SANBI that wants to undertake rehabilitation work; and
    - The fact that the RMGs currently being developed should provide guidance to other external persons (*i.e.*, private) for any rehabilitation activities that may impede, divert, and change the bed/banks of

	<p>characteristics of watercourses; if these other person(s) are impeding, diverting, and changing the bed/banks then they should apply for authorization for which there is a provision for within the DWS.</p> <ul style="list-style-type: none"> <li>◆ <b>Ms Ndileka Mohapi</b> indicated that she has an understanding around the issues of Section 21 (c) and (i), which mainly relates to various diversions of water resources in an attempt to route water elsewhere which is not natural and that is what the DWS can authorize. She indicated that this is a totally different and separate issue when it comes to the rehabilitation of wetlands.</li> <li>◆ <b>Dr Wietsche Roets</b> explained that the DWS does not authorize rehabilitation, but it authorizes the impeding, diverting, or changing of bed/banks of characteristics of watercourses; and if any of those activities in terms of rehabilitation constitute those water uses, they need to get authorized accordingly.</li> <li>◆ <b>Ms Ndileka Mohapi</b> supported <b>Dr Wietsche Roets</b> and indicated that the matter is clear as far as he has explained it. She indicated that the way the authorization process has been captured in the reports and/or presentation is confusing. She requested the team to revise this component and capture it clearly to prevent confusion and misinterpretation.</li> <li>◆ <b>Ms Esmeralda Ramburran</b> firstly supported the way forward on the component of authorization. She further provided the following inputs/comments: <ul style="list-style-type: none"> <li>• She mentioned the case-by-case basis approach and indicated that in terms of doing the actual wetland rehabilitation, not every landscape would be the same. Therefore, one would have to develop very specific plans and assessments that are needed based on that specific scenario;</li> <li>• She indicated that the guidelines are good overall, but subject to updates;</li> <li>• The guidelines in question provide a guide to users, and they are broad enough to advise the users to ensure there is compliance with legislation which goes beyond just environmental authorization and licenses because there is also the NEMA that needs to be included as well as other gazetted environmental instruments;</li> <li>• The guidelines should not only be geared towards a national level/scale, but also take into account local municipalities and other functions including Spatial Planning and Land Use Management Act (SPLUMA), which comes into play and must be considered;</li> <li>• Additionally, the tools that have been used within those assessments are quite important.</li> </ul> </li> <li>◆ <b>Ms Tovhowani Nyamande</b> gave a response in terms of the rationale behind the team including authorization; which is the consideration that was informed by Wetland Offset activities that tend to trigger WULAs. She added that offsetting activities are proposed by the applicant, which can be a private person or industries.</li> <li>◆ <b>Ms Ndileka Mohapi</b> indicated that the team must be very clear that the only time authorization would be triggered is when the applicant intends to undertake rehabilitation activities that have effects and impacts on the characteristics of watercourses, and this should be captured as such. She also referred to slide 83, Step 4, and requested the team to provide more detail in terms of the linkages in order to avoid confusing the readers.</li> </ul>
9.	<p><u><a href="#">Way Forward</a></u></p> <ul style="list-style-type: none"> <li>◆ <b>Ms Ndileka Mohapi</b> opened the floor for <b>Ms Tovhowani Nyamande</b> to provide the way forward.</li> <li>◆ <b>Ms Tovhowani Nyamande</b> summarized the way forward as follows: <ul style="list-style-type: none"> <li>• She indicated the way forward as per the agreement in the meeting which is to extend the PSC Members inputs/comments due date by two (2) weeks with the new due date being on <b>02 June 2023</b>;</li> <li>• She indicated the next PSC Meeting would be communicated in due course by the Project Team.</li> </ul> </li> </ul>
10.	<p><u><a href="#">Closing Remarks</a></u></p> <ul style="list-style-type: none"> <li>◆ <b>Ms Ndileka Mohapi</b> applauded the colleagues for the hard work. She also thanked everyone for their continuous participation especially through deliberations around recommendations of innovative technology.</li> </ul>

	<ul style="list-style-type: none"> <li>♦ <b>Ms Ndileka Mohapi</b> indicated that there are also some of the inputs/comments that were received that might have to slightly change the direction <i>i.e.</i>, the inclusion of some of the municipal and industrial related matters. She once again thanked everyone for their participation and being an interactive PSC group.</li> </ul>
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## (ii) Issues and Responses from Meeting Chatbox

No.	Issues Raised	Raised by	Response	Progress to date
1.	The correct name for the GAI is Geomorphological Driver Assessment Index not Index Assessment.	<b>Dr Christa Thirion</b>	<b>Ms Tovhowani Nyamande</b> indicated this change would be effected.	Done.
2.	Can the presentations please be shared with the attendees?	<b>Mr Sipiwo Xongo</b>	The <b>Project Team</b> indicated that the presentation would be shared immediately after the meeting	Done.
3.	The issue of getting municipalities on board was emphasized.	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> indicated that City of Cape Town (CPT), City of Joburg (CoJ) and City of Tshwane (CoT) were invited, and some were represented in the meeting.	Done.  CPT and CoJ representatives declined the invite due to other commitments.  The team extended an invite to CoT and awaiting a response
4.	Suggestion to invite SALGA instead as a representative for all the municipalities.	<b>Ms Elkerine Rossouw</b>	<b>Ms Tovhowani Nyamande</b> indicated that that the team has been trying to get SALGA and COGTA on board.	On-going  The team onboarded <b>Mr Lubabalo Luyaba</b> and <b>Mr Moses Ratshiedana</b> from SALGA.  The team still trying to onboard a representative from COGTA
5.	We are noticing an increase in mine WULA's proposing the implementation of Nature-Based Solutions (NBS) as passive methods in the form of constructed wetlands to treat specifically AMD. Would there perhaps be a DWS initiative in the future to provide guidelines regarding NBS as passive solutions to various water quality challenges for various water resources?	<b>Dr Yolandi Schoeman</b>	<b>Ms Nyamande Tovhowani</b> indicated that NBS and Constructed wetlands interventions are part of the current reports and the Rehabilitation Project. The Project Team would definitely check if AMD Scenario application included those as well.	Done.
6.	There is a strong international move to decommission fishways, mostly because they failed (KNP, started removing one or two so far?). Baarnes river rehabilitation in Gqeberha may bring new ways (innovations?) - K5/11201	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> indicated that the <b>Project Team</b> would follow-up and consider the technical information.	On-going.  The team developed a Scenario for re-establishment of migratory routes through fishways for the River Theme.  The team further sourced literature on decommissioning of fishways to stay abreast with current innovations.

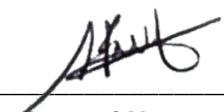
7.	Are there linkages between this project with the WWF project focusing on water source areas and protecting those?	<b>Mr Sipiwo Xongo</b>	<b>Ms Tovhowani Nyamande</b> indicated that the Strategic Water Source Areas (SWSA) are covered under <i>Principle 1</i> of the Guiding Rehabilitation Principles	Done.
8.	Can the guidelines also cover river sand mining? It is a growing and very destructive activity, who authorize these anyway?	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> noted this for the team's consideration.	Done.  Sand mining including dredging activities were found to be a major impact of estuaries. The activities particularly impact geomorphology, water quality, habitat, and biota.  A Scenario was developed for rehabilitation of activities relating to sand mining, road construction & dredging (sand).
9.	I should have mentioned to that we are revising the River Rehabilitation guidelines quoted (TT643 or K5/2270). The Project Team must attend the Steering Committee (PSC) Meeting in order to shape that development to fit water sector needs.	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> noted this for consideration.	Done.  One-on-one engagement between DWS and WRC was convened on <b>12 July 2023</b> to align the two rehabilitation projects.
10.	Peatland Rehabilitation Protocol Project was led by <b>Dr Althea Grundling</b> of Agricultural Research Council (ARC). The project number is: K5/00098.	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> noted this for consideration.	On-going.  The Project Team currently busy with onboarding <b>Dr Althea Grundling</b> on the PSC.  The team sent a follow up email to <b>Dr Althea Grundling</b> and still awaiting a response.
11.	When we get to actual Development of Guidelines (based/aligned to other partners), then we need to sort out Responsibilities, as it is unclear who is the Implementer and where do we all become Implementers. This was not clear from the very first meeting.	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> noted this for consideration.	On-going.  At this stage, only a brief mention of the roles and responsibilities are made, where applicable, pertaining to the authorities. Once the guidelines are completed, the DWS team intend to translate the guidelines into practice which would provide more information on the respective actions, roles, and responsibilities for implementation.
12.	In future, we request a month for comments.	<b>Mr Bonani Madikizela</b>	<b>Ms Tovhowani Nyamande</b> noted this.	The Project Team will consider, only when timelines allow.
13.	Please can the Council for Scientific and Industrial Research (CSIR) ( <b>Heidi van Deventer</b> )	<b>Ms Esmeralda Ramburran</b>	<b>Ms Tovhowani Nyamande</b> noted this for consideration.	Done

	<p>hvdeventer@csir.co.za) be invited for attendance of this meeting given Cooperation/collaboration work between CSIR and DFFE on wetland restoration, forested wetlands, and peatlands. SANBI freshwater team are also important to include inputs and technical guidelines.</p>			<p><b>Dr Heidi van Deventer</b> from CSIR was onboarded.</p> <p>SANBI already onboarded with <b>Ms Jenifer Zungu</b> as a representative.</p>
14.	<p>DFFE also collaborates with the World Wide Fund (WWF) for Nature on work in SWSAs. It would be beneficial to include here.</p>	<p><b>Ms Esmeralda Ramburran</b></p>	<p><b>Ms Tovhowani Nyamande</b> noted this for consideration.</p>	<p>Done</p> <p><b>Mr Rodney February</b> has been onboarded on the PSC to contribute to such components of the project.</p>
15.	<p>PSC Members requested to be excused from the meeting early to attend to other commitments.</p>	<p><b>Mr Marc De Fontaine, Mr Phil McLean, Ms Elkerine Rossouw, Mr Musawenkosi Kunene and Mr Elijah Mogakabe</b></p>	<p><b>Ms Ndileka Mohapi and Ms Tovhowani Nyamande</b> noted all the apologies accordingly.</p>	<p>Done.</p>

### (iii) Meeting Action List

No.	Action(s)	Responsible Official(s)	Progress to date
1.	<p><b>Mr Phil McLean</b> to recommend a representative from WWF to replace <b>Dr Klaudia Schachtschneider</b> who is no longer working for the organization.</p>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>Done</p> <p><b>Mr Rodney February</b> has been onboarded on the PSC</p>
2.	<p><b>Ms Ndileka Mohapi</b> requested the Project Team to continue sourcing a representative from the South African Institute for Aquatic Biodiversity (SAIAB) because they have a different responsibility from South African Council for the Landscape Architectural Profession (SACLAP) and Institute for Landscape Architecture in South Africa (ILASA).</p>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>Done</p> <p><b>Mr Roger Bills</b> has been onboarded on the PSC</p>
3.	<p><b>Mr Bonani Madikizela</b> and <b>Ms Elkerine Rossouw</b> suggested onboarding the following municipalities into the PSC:</p> <ul style="list-style-type: none"> <li>• South African Local Government Association (SALGA);</li> <li>• Department of Cooperative Governance and Traditional Affairs (COGTA)</li> <li>• City of Tshwane (CoT; and</li> <li>• City of Johannesburg (CoJ)</li> <li>• City of Cape Town (CPT)</li> </ul>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>Done.</p> <p>CPT and CoJ well represented although they could not join the meeting due to other commitments.</p> <p>The team extend an invite to CoT.</p> <p>The team onboarded <b>Mr Lubabalo Luyaba</b> and <b>Mr Moses Ratshiedana</b> from SALGA.</p> <p><b>Action:</b> The team still trying to onboard a representative from COGTA</p>
4.	<p><b>Mr Bonani Madikizela</b> requested consideration to be given to by-laws as far as legislation is concerned especially when it comes to municipalities.</p>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>Done</p> <p>Legislation table in the Estuarine Report has been update with Sanitation, Land use Management, Waste Management, Stormwater Management, Diffuse Water and Quality Management by-laws.</p>
5.	<p><b>Mr Bonani Madikizela</b> requested consideration to be given to all efforts made on the below listed projects when dealing with other water resources such as Lakes, Dams and Estuaries to:</p> <ul style="list-style-type: none"> <li>• <b>WRC Project</b> on the improvement of fishways</li> <li>• The <b>DWS Project</b> on the National Siltation Monitoring/Management Programme led by <b>Ms Lesego Gaegane</b> <a href="mailto:lesegg@wrc.org.za">lesegg@wrc.org.za</a> for <b>Mr Leonardo Manus</b> (DWS)</li> </ul>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>On-going</p> <p><b>Action:</b> Communication to be initiated with the relevant colleagues who are dealing with the projects when the team commences with soliciting inputs for Lakes, Dams and Estuaries.</p>
6.	<p><b>Ms Esmeralda Ramburran</b> suggested that industries and pollution through the sewer and sanitation system should be added as a component into the guidelines.</p>	<p><b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b></p>	<p>Done</p> <p>WWTW and industries were merged as a scenario for the Estuaries Report.</p>

7.	<b>Ms Mohapi Ndileka</b> to provide guidance internally to the team in terms of formulating the guidelines <i>i.e.</i> , through a workshop, brainstorming or discussion session that would entirely focus on some of the municipal/industrial waste streams and the management thereof.	<b>Ms Tovhowani Nyamande</b>	Done  WWTW and industries were merged as a scenario for the Estuaries Report.
8.	<b>Mr Bonani Madikizela</b> suggested that the team should consider the inclusion of Peatland wetlands in the guidelines.	<b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b>	Done  Peatland impacts and interventions included in the Wetlands Report.
9.	Following extensive deliberations pertinent to authorization of rehabilitation activities, <b>Ms Ndileka Mohapi</b> requested the Project Team to revise and capture all statements relating to authorization as per the explanation provided by <b>Dr Wietsche Roets</b> and <b>Ms Elkerine Rossouw</b>	<b>Mr Kgotso Mahlahlane</b> and <b>Ms Mmaphefo Thwala</b>	Done
10.	PSC Members inputs/comments into the reports to be extended by two (2) weeks with a new due date of <b>02 June 2023</b>	<b>Ms Tovhowani Nyamande, Ms Mmaphefo Thwala</b> and <b>Mr Kgotso Mahlahlane</b>	Done. Reports, Presentations, and Previous Meeting Minutes shared with all the members.

<p><b>Compiled by:</b></p>  <hr/> <p><b>Mr Kgotso Mahlahlane (Project Coordinator)</b> Production Scientist: SDS Department of Water and Sanitation Date: 22 August 2023</p>	<p><b>Approved by:</b></p>  <hr/> <p><b>Ms Tovhowani Nyamande (Project Leader)</b> Director: SDS Department of Water and Sanitation Date: 22 August 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. Mr Phil McLean	Department of Environmental Affairs and Development (DEA): Western Cape
7. Ms Busisiwe Mahlangu	Inkomati-Usuthu Catchment Management Agency (CMA)
8. Ms Elkerine Rossouw	DWS, Breede-Gouritz CMA
9. Mr Samkele Mnyango	DWS, Sources Directed Studies
10. Ms Melissa Lintnaar-Strauss	DWS, Western Cape, Water Resource Protection
11. Mr Yakeen Atwaru	DWS, Reserve Determination
12. Ms Thembisa Torch	DWS, Berg Olifants Proto CMA
13. Ms Rachel Mpe	DWS, North West, Water Resource Support
14. Ms Lilian Siwelane	DWS, North West, Institutional Establishment
15. Ms Esther Lekalake	DWS, Water Resource Classification
16. Dr Mampolelo Photolo	DWS, Resource Quality Information Service
17. Ms Joyce Thapelo Machaba	DWS, Reserve Determination: Surface
18. Mr Elijah Mogakabe	DWS, Resource Quality Information Services
19. Mr Molefi Mazibuko	DWS, Reserve Determination: Surface
20. Mr Pieter Viljoen	DWS, Water Resource Management Planning
21. Ms Nsovo Mhlarhi	DWS, Resource Quality Information Services
22. Jurie Human	Thungela Coal Mining Company
23. Dr Masindi Vhangwele	Magalies Water
24. Ms Thembela Bushula	Breede-Gouritz CMA
25. Mr Bonani Madikizela	Water Research Commission – WRC
26. Dr Christa Thirion	DWS, Resource Quality Information Services
27. Ms Lebogang Matlala	DWS, Water Resource Classification
28. Dr Wietsche Roets	DWS, Water Abstraction and Instream-Use
29. Mr Musawenkosi Kunene	DWS, Specialized Unit Water Resource Policy Strategy and Evaluation
30. Ms Stephinah Mudau	Minerals Council of South Africa
31. Ms Esmeralda Ramburran	Department of Forestry Fisheries and the Environment
32. Ms Kim Hodgson	Umgeni Water
33. Dr Yolandi Schoeman	University of the Free State
34. Mr Theolin Naidoo	Institute of Natural Resources NPC
35. Mr Lindelani Lalumbe	DWS, Surface and Groundwater Information
36. Mr Sipiwo Xongo	DWS, Western Cape, Berg-Olifants Proto-CMA
37. Mr Vincent Qwabe	DWS, North West, Water Resource Support
38. Ms Nolusindiso Jafta	DWS, Water Resource Classification
39. Ms Dephney Kabini	DWS, Free State
40. Mr Kobus Fell	National Water Monitoring and Map Forum
41. Mr Marc De Fontaine	Rand Water
42. Ms Bridget Nemadodzi	Minerals Council of South Africa
43. Mr Norman Nokeri	Lepelle Northern Water
44. Mr Isaac Ramukhuba	DWS, Water Use Licensing
45. Ms Ledile Jeanette Nyama	DWS, Gauteng, Vaal Orange Proto-CMA
<b>Apologies Rendered</b>	
1. Mr Kwazikwakhe Majola	DWS, Reserve Determination: Groundwater
2. Ms Debbie Muir	Department of Forestry Fisheries and the Environment
3. Mr Donovan Gillman	Institute for Landscape Architecture in South Africa
4. Ms Jacqueline Jay	Department of Forestry Fisheries and the Environment
5. Ms Kate Snaddon	Freshwater Consulting

<b>6. Mr Reveck Hariram</b>	Rand Water
<b>7. Dr Chantel Petersen</b>	City of Cape Town
<b>8. Ms Adaora Okonkwo</b>	DWS, Water Resource Classification
<b>9. Mr Sazi Mthembu</b>	DWS, Resource Quality Information Services
<b>10. Mr Washington Tunha</b>	DWS, Implementation Support
<b>11. Ms Mpho Zwane</b>	City of Johannesburg
<b>12. Mr Pieter Ackerman</b>	DWS, Water Abstraction and Instream-Use
<b>13. Mr Douglas Macfarlane</b>	Eco-Pulse Environmental Consulting Services