



No	Item	Action																									
1.	<p><b>Welcome</b></p> <p>The Acting Chairperson welcomed everyone present at the forum meeting.</p>	<i>Mr A Shibambo</i>																									
2.	<p><b>Introduction</b></p> <p><i>A Shibambo</i> introduced himself as the Acting chairperson and requested all attendees to introduce themselves.</p>	<i>All</i>																									
3.	<p><b>Apologies</b></p> <p><i>A Shibambo</i> asked attendees to sign the attendance register, which was being circulated, and to record any apologies on the attendance register.</p> <table border="1"> <thead> <tr> <th>No</th> <th>Name</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Lesiba Mabona</td> <td>DWS</td> </tr> <tr> <td>2.</td> <td>Ephraim Matseba</td> <td>DWS</td> </tr> <tr> <td>3.</td> <td>Awande Nojekwa</td> <td>Msobo Coal</td> </tr> <tr> <td>4.</td> <td><b>Mashudu Gangazhe</b></td> <td>Msobo coal</td> </tr> </tbody> </table>	No	Name	Organization	1	Lesiba Mabona	DWS	2.	Ephraim Matseba	DWS	3.	Awande Nojekwa	Msobo Coal	4.	<b>Mashudu Gangazhe</b>	Msobo coal	<i>All</i>										
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4.	<p><b>Minutes of the Previous Meeting</b></p> <p><b>Corrections</b></p> <table border="1"> <thead> <tr> <th>Page</th> <th>Item</th> <th>Statement/ word</th> <th>Corrections</th> <th>Reason</th> </tr> </thead> <tbody> <tr> <td>None</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td>8.9</td> <td>18</td> <td>60</td> <td>Incorrect number</td> </tr> <tr> <td>9</td> <td>8.9</td> <td>High E.Coli</td> <td>Removed</td> <td>Removed</td> </tr> <tr> <td>12</td> <td>8.21</td> <td>No representative present</td> <td>Nothing to report</td> <td>Incorrect capturing</td> </tr> </tbody> </table>	Page	Item	Statement/ word	Corrections	Reason	None					9	8.9	18	60	Incorrect number	9	8.9	High E.Coli	Removed	Removed	12	8.21	No representative present	Nothing to report	Incorrect capturing	<i>All</i>
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<p>5.</p>	<p><b>Matters Arising from the Previous Minutes</b></p> <p>1. Feedback on the criminal case against Ermelo landfill site from DARDLEA(<b>carried to the next forum</b>).</p> <ul style="list-style-type: none"> <li>No representative <i>from DARLEA</i> was present.</li> <li><i>Clement Makwela</i> to request them to send a short brief.</li> </ul> <p>2. <i>Mashudu Gangazhe</i> to invite forum stakeholders who have been absent in the forum for long.</p> <ul style="list-style-type: none"> <li><i>Clement Makwela</i> to use the old letter to send out invitations to those who have not been present in the forum.</li> <li><i>Clement Makwela</i> said that the letters are there but he is waiting for the forum chairperson to sign them. (<b>Absent with an apology and the action is carried to the next forum meeting</b>)</li> </ul> <p>3. <i>Mashudu Gangazhe</i> said that he will send the colour coded water quality results before Thursday 29<sup>th</sup> November 2018.</p> <ul style="list-style-type: none"> <li><i>Awande Nojekwa</i> said that he will send the results before the 1<sup>st</sup> of March 2019 on behalf of <i>Mashudu Gangazhe</i>. (<b>Absent with an apology and the action is carried to the next forum</b>)</li> </ul> <p>4. <i>Abraham Maphoso</i> to present the ground water quality results in the next forum meeting (<b>Absent without an apology and the action is carried to the next forum meeting</b>).</p> <p>5. <i>Lutho Totsa</i> to present the ground water quality results for Tutuka P/S in the next forum meeting. (<b>Absent without an apology and the action was carried to the next forum meeting</b>)</p> <p>6. <i>Clement Makwela</i> to remove Majuba railway line from the agenda.</p> <p>7. Forum stakeholders with none compliances to present ground water monitoring.</p>	<p>DARDLEA</p> <p><i>Mashudu Gangazhe/clement Makwela</i></p> <p><i>Mashudu Gangazhe/Awande Nojekwa</i></p> <p><i>Abraham Maphoso</i></p> <p><i>Lutho Totsa</i></p> <p><i>Clement Makwela</i></p> <p><i>all</i></p>
<p>6. 6.1</p>	<p><b>Additions to the Agenda</b></p> <ul style="list-style-type: none"> <li>Resource management plan for the Grootdraai dam.</li> </ul>	<p><i>Steven Nhlabathi</i></p>
<p>7. 7.1</p>	<p><b>Items for discussions</b></p> <p><b>Rand Water</b></p> <ul style="list-style-type: none"> <li><i>N Van Der Walt</i> presented the water quality for the quarter as follows:</li> <li>At point VE (Vaal river @ Ermelo)- at this point most of the variables were tolerable-acceptable and ideal water qualities.</li> <li>WITPUNTSPRUIT (witpuntsruit @ N2 near camden) - there was unacceptable levels of conductivity, fluoride, PH and sulphates. The Ammonia was acceptable.</li> <li>VAAL-DS_WITPT (vaal river D/S of witpuntspruit) – there is none compliance of conductivity, Fluoride and sulphates. There were acceptable levels of ammonia, COD, chloride and alkalinity; the PH was ideal.</li> </ul>	<p><i>Nicolene Van Der Walt</i></p>

	<ul style="list-style-type: none"> <li>• VKV (Klein Vaal river) – the water quality is tolerable-acceptable and ideal except for chloride, fluoride and nitrate.</li> <li>• VRA (Rietspruit below Amersfoort) - the water quality is ideal, tolerable to acceptable and there none compliances was nitrates.</li> <li>• VKK (brummerspruit below Ermelo) –she indicated that most of the parameters did not comply and this was because of the WWTWs as it can be seen that the Ammonia</li> <li>• VKR (tweefontein @ riverside) - at this point the water quality did not comply except for tolerable levels of COD, sulphates, the choride was ideal and the PH was ideal.</li> <li>• VK (brummerspruit before vaal river)-most of the parameters are tolerable-acceptable and ideal. The none-compliance was of fluoride and nitrate.</li> <li>• VAS (vaal river above standerton)- most of the variables were tolerable-acceptable and ideal.the only none compliance was of alkalinity.</li> <li>• VGK (geelklipspruit below Amersfoort)- there was none compliance of fluoride and alkalinity for the quarter.</li> <li>• VBB (blesbokspruit below bethal)- most of the variables were unacceptable except for chloride, conductivity, PH and sulphates.</li> <li>• VBS (blesbokspruit @ skaapkraal)- she said that at this point there was acceptable levels of ammonia &amp; chloride, conductivity &amp; sulphates were tolerable, PH was ideal and the other parameters did not comply.</li> <li>• VB (blesbokspruit @ vaal river confluence) – most of the variables were tolerable to acceptable except for the unacceptable levels of alkalinity for the whole year and fluoride was also not acceptable for half of the year</li> <li>• ND-LEEU (leeuspruit @ new Denmark colliery) – there was unacceptable levels of chloride, conductivity, fluoride, alkalinity and sulphates.</li> <li>• VS (vaal river @ standerton)- the only none compliance was of fluoride and the other parameters are tolerable-acceptable and ideal.</li> <li>• She indicated that most of the WWTW we can see that the Ammonia and Faecal coliforms are not complying.</li> <li>• Bethal WWTWs-there was unacceptable level of ammonia and Faecal coliforms for almost the whole year.</li> <li>• Ermelo WWTWs-there was unacceptable levels of ammonia, COD, Faecal coliforms for the whole yeah.</li> <li>• Tutukani WWTWs- most of the parameters were acceptable except for Faecal coliforms and PH.</li> <li>• New Denmark colliery (south shaft) WWTWs- the only none compliance was faecal coliforms for the quarter and the other parameters were acceptable. <b>(The water quality report can be found on <a href="http://www.reservoir.co.za">www.reservoir.co.za</a>)</b></li> <li>• <i>R Ndou</i> asked when they say that the WWTWs are complying/not complying are they comparing them with the water quality guidelines or the general inspection standard.</li> <li>• <i>N Van Der Walt</i> indicated that they compare them with the in-stream water quality guidelines and they are stated on the back of the report.</li> </ul>	
7.2	<p><b>DWS Water Quality Management.</b></p> <ul style="list-style-type: none"> <li>• <i>C Makwela</i> presented the water quality results and said that they only have the results for February-March and in April they did monitor as they did not have a lab service provider; he presented the results as follows:</li> <li>• VE (final effluent @ Breyten works)- it remains to be a problem and</li> </ul>	<i>Clement Makwela</i>

fortunately the last time we went to do a site visit there was a contractor on site; hopefully the results will improve but for now they are still not complying.

- VE (Vaal river origin @N17 Bridge) most of the parameters are tolerable, acceptable to ideal and the only none compliance was of sulphates February.
- VE (Vaal river @ R29/N2 Bridge at Camden-the water quality there is acceptable and ideal.
- VE (Humanspruit D/s of delta mine)-we had high conductivity, chloride, ammonia and nitrate; the other variables were tolerable, acceptable and ideal.
- VE (witpunsruit @ usuthu mine) - there was unacceptable levels of conductivity, chloride, PH & sulphates.
- VE (witpunsruit @R29 N2 Camden bridge) none compliance of ammonia, chloride, PH & sulphates
- VRA (Vaal river on N11 Bridge to Amersfoort)- the water quality was relatively acceptable and the only unacceptable variable was sulphates in February.
- VRA (final effluent @ Amersfoort sewage works)- they are still busy with the upgrading or construction and it's not performing on the water qualities. He also indicated that he is still not sure on when are they going to finish with the upgrades.
- VRA (Rietspruit @ N11 tapfontein bridge to Ermelo & Amersfoort) - we had relatively acceptable water qualities except for ammonia, nitrate and E.Coli in November.
- VK (GDCC06 spruit @ old spitskop mine) - they had high conductivity and sulphates but most of the variables were acceptable and ideal.
- VK (GDCC04 Douglas dam inflow @ N11 Bridge) we had high conductivity for the quarter and sulphates in February, but the other variables were tolerable, acceptable and ideal
- S-ESW (Emerlo sewage works) - it continues to underperform and they have brought a contractor in April.
- VK (Brummerspruit @ N17 D/S of Ermelo)- most of the variable are unacceptable and it relates to the Ermelo WWTWs not working.
- VBS (GDCC15 Blesbokspruit bridge at @R38 Bridge Tapfontein)- they could not sample in February as the stream was dry. In March this point had tolerable to acceptable variables.
- S-BETHAL (Final effluent @ Bethal sewage works)-most of the parameters are unacceptable such as conductivity, ammonia, E.coli, COD did not comply in February & chloride in March.
- VBB (Blesbokspruit D/S of Bethal sewage works)-they had high ammonia, nitrate, phosphates and E.Coli.
- VBS (VS2-4 blesbokspruit @ R39 Rietvley bridge) – this point had high sulphates for the quarter.
- ND-LEEU (Leeuspruit D/S of New Denmark Colliery)- this point generally complied except for E.Coli.
- ND-LEEU(Leeuspruit @ welbedacht Bridge)-they had high conductivity, chloride, sulphates and E.Coli.
- VAS (VS4-4 GDCC11 vaal river @ R35 Bloukop Bridge)- most of the variable complied except for E.Coli in February.
- *C Makwela* concluded his water quality with point VAS Grootdraai dam wall- the point was relatively acceptable except for high E.Coli in the month February.
- *J Van Wyk* said that he is not sure if it had been discussed in the past

	<p>forum meetings but Sasol and Eskom have started to complain about the deteriorating trend of EC in the Grootdraai dam water indicating that they would prefer taking water from the Vaal dam and the department is not in favor of operating the system in that fashion to an extent that they went to the acting DG and a task team has been put together to investigate the deteriorating trend of EC in the Grootdraai dam; the problem is not easy to solve as we know that there are issues of the transfer of water; he also indicated that it's important for the two regional offices representing Mpumalanga province to take note of that as it cost Sasol &amp; Eskom millions according to them; he also mentioned that he has alerted <i>Dr Khorommbi &amp; Mr Matseba</i> about it.</p> <ul style="list-style-type: none"> <li>• <i>J Van Wyk</i> also indicated that Mr Dan Govender from Eskom complained about Nutrients enrichment just below the Grootdraai dam at Grootfontein pump station; apparently there is a lot of grass that block the grits and it needs to be cleaned on a daily basis; the pumps needs to be stopped and started which is not good for the pumps. He mentioned that the question could be where does the Nutrients &amp; the grass come from; he indicated that this is happening just below the Grootdraai dam at Grootfontein.</li> <li>• <i>A Shibambo</i> asked in terms of the task team if they are going to appoint a PSP in terms of investigating the problem or they have timelines in terms of the plan.</li> <li>• <i>J Van Wyk</i> responded that he joined the meetings a bit later but when Debra was still Acting DG she asked that they meet twice a month but now it has been pushed into meeting once a month.</li> </ul>	
7.3	<p><b>DWS Compliance Monitoring and Enforcement</b></p> <p><b>Regulation: Compliance Monitoring</b></p> <ul style="list-style-type: none"> <li>• <i>S Nyathikazi</i> reported that the issue of pump stations was brought to them and there will be a joint inspection that will be done on the 28<sup>th</sup>-29<sup>th</sup>, they will be starting from Jericho dam along the line towards Grootdraai dam. Those pump stations a feeding Tutuka, Camden and other power stations.</li> <li>• <i>A Shibambo</i> asked that from CME side what will they be looking for</li> <li>• <i>S Nyathikazi</i> responded that power stations have complained about the water qualities and the pressure; the process controllers in this power stations have complained about illegal connections by farmers because the water levels are dropping within the river systems; he also indicated that we have an issue of quantity as well as quality just as <i>J Van Wyk</i> indicated and as CME they are looking at the issue.</li> <li>• <i>A Shibambo</i> urged forum members that they cannot be sure if someone is authorized or not but if you contact the department they can verify in terms of authorization if they have a WL or not.</li> <li>• <i>S Nyathikazi</i> mentioned that in terms of complaints he will not be directly involved as he will be moving from the Gauteng regional office to head office; however he will be providing oversight and will be assisting with regards to the prosecutions and admin support, even though some investigations will be taking place but in terms of direct complaints there will be a person to report them to but when time allows he will be able to attend the forum.</li> <li>• <i>L Nqelenga</i> added that there is a serious concern of tapping in on the system. They will go down to look at who is tapping in on that</li> </ul>	<i>Senzo Nyathikazi</i>

	<p>Eskom pipeline and he indicated that we should be concerned at this affects the whole system of ESKOM; he also stated that at the moment he does not have human capital but this will affect the whole system and he committed that they will go down and investigate.</p> <p><b>Enforcement</b></p> <ul style="list-style-type: none"> <li>Nothing further to report</li> </ul>	
<b>8.</b>	<b>Catchment Activities (5 Minutes Report Back by Stakeholders)</b>	
<b>8.1</b>	<p><b>TUTUKA POWER STATION</b></p> <ul style="list-style-type: none"> <li>(Absent without an apology)</li> </ul>	
<b>8.2</b>	<p><b>CAMDEN POWER STATION</b></p> <ul style="list-style-type: none"> <li><i>M Netili</i> said that he will be reporting on the new ash dam project; they have started with the pipeline from the ash dam to the power station but they have issues because of a camp which was built on the wetland and now they are waiting for the feedback from the department to give us go ahead on whether to remove it or not but now that issue has been going for the past year.</li> <li><i>A Shibambo</i> asked if they want a go ahead in terms of a WUL.</li> <li><i>S Nyathikazi</i> stated that the activity was not authorised and as enforcement they had to issue a notice; with regard to their representation committee their C &amp; I specialist had required some studies to be conducted which were done &amp; submitted; now the issue is depends on the representation committee and legal services in terms of how are they going to implement that works because if you issue someone with a directive it means that they did not comply with a notice; he also indicated that they cannot authorise an unlawful activity to correct another unlawful activity; he concluded that the matter will be communicated in time but the matter needs to be looked at in terms of the technical and legal aspects.</li> <li><i>A Shibambo</i> asked for timelines on when they can expect feedback.</li> <li><i>S Nyathikazi</i> responded that he will give some form of feedback before the end of June.</li> </ul>	<i>Murendeni Netili</i>
<b>8.3</b>	<p><b>MAJUBA RAILWAY LINE PROJECT</b></p> <ul style="list-style-type: none"> <li>(the forum agreed that it should be removed from the agenda)</li> </ul>	
<b>8.4</b>	<p><b>MAJUBA POWER STATION</b></p> <ul style="list-style-type: none"> <li>No presentation.</li> </ul>	
<b>8.5</b>	<p><b>NEW DENMARK COLLIERY</b></p> <ul style="list-style-type: none"> <li><i>T Nkonyane</i> presented the water qualities for new Denmark colliery for the quarter up to March and they are still waiting for their April results from the Lab; she presented the water qualities as follows: she did not put all the results for all the points but only the areas of concern of which is the pollution control dam area.</li> <li>At sampling point SA (D/S of leeuspruit) there were unacceptable levels of EC &amp; TDS.</li> <li>At sampling point SK (Between Tutuka P/S &amp; new Denmark colliery) The EC and alkalinity was unacceptable.</li> <li>At the U/S of the Leeuspruit they found unacceptable levels of alkalinity</li> <li>At sampling points SA there were unacceptable levels of Chloride</li> </ul>	<i>Thuli Nkonyane</i>

	<p>and sulphates.</p> <ul style="list-style-type: none"> <li>• At the sampling point which is at the inflow of the Grootdraai dam the chloride level was unacceptable.</li> <li>• At point SK the ammonia and phosphates.</li> <li>• <i>T Nkonyane</i> said that the mine has 3 WWTWs and 2 were operational; they have just refurbished 1 WWTWs.</li> <li>• At the central shaft WWTWs the results were within the limits</li> <li>• At their no shaft WWTWs they have just re-opened this plant and it has not been operational for years; they have issues with Ammonia and sometime in January they had issues with COD; The reason was that their septic tanks need to be dislodged for which they are in the process of getting a company to dislodge their septic tank so that they can be within the specs in terms of final effluent.</li> <li>• At the okhozini WWTW all the parameters were within the acceptable levels.</li> </ul>	
8.6	<p><b>Anker coal (GOLFVIEW &amp; LELIEFONTEIN)</b></p> <ul style="list-style-type: none"> <li>• (Absent without an apology).</li> </ul>	
8.7	<p><b>MSOBO COAL (SPITZKOP AND TSELENTIS)</b></p> <ul style="list-style-type: none"> <li>• (Absent with an apology)</li> </ul>	
8.8	<p><b>MASHALA RESOURCES (FERREIRA COA, L MINE)</b></p> <ul style="list-style-type: none"> <li>• Absent without an apology.</li> </ul>	
8.9	<p><b>MOOIPLAATS COLLIERY</b></p> <ul style="list-style-type: none"> <li>• <i>Louis Marais</i> presented the catchment activities for <i>Mooiplaats colliery</i>; Mooiplaats Colliery located on Portion 1 and 9 of the Farm Mooiplaats 290IT, Ermelo, Msukaligwa Local Municipality, Gert Sibande District Municipality, south of the N2, Mpumalanga Province, South Africa. It has been under care and maintenance since 2013 until 2017 when new owners bought it; it's under new control and it's fully operational.</li> <li>• <i>Louis Marais</i> indicated that they have 30 surface monitoring points and 30 ground water monitoring points.</li> <li>• <i>Louis Marais</i> said that there are two main rivers or streams which are the witpuntsruit and Vaal River. The witpuntsruit comes from old Mashala resources area but it's not from Mashala but just that area where there is a decant and that impacts the water of the Humanspruit &amp; witpuntsruit as it can be seen that from the upstream monitoring point the PH is 3,5; the high EC and high sulphates; he indicated that there is a remarkable difference.</li> <li>• <i>Louis Marais</i> it can be seen as the 3 profiles are showing that the PH is outside the graph; after Camden the PH increases and after it remained stable after the confluence of the Usuthu decant were it increases. He stated that it can be seen that there is no real additional pollution although while the Mooipaats was under care and maintenance there was a lot of overflows from the water infrastructure such as the core disposal dam which enters the witpuntsruit as it can be seen that there is a little elevation but since the beginning of last year it has been under control except for 1 silly overflow which happened from a few hours after a pipe slipped from a pump, the water did not flow directly into the witpuntsruit but it would have flowed with rains later during the year. <b>(a detailed presentation will be distributed with the minutes)</b></li> <li>• <i>Louis Marais</i> indicated that decant opposite delta mine needs to be looked at as one of the sources that led to low water qualities at Grootdraai dam.</li> </ul>	<i>Louis Marais</i>

	<ul style="list-style-type: none"> <li>• <i>L Nqelenga</i> asked when they do not reach the limits what do they do to mitigate it.</li> <li>• <i>L Marais</i> there is nothing which they can do as the pollution source is way upstream and when it reaches Mooiplaats they do not have the authority or the mandate to rehabilitate the witpuntspruit and they make sure that there is no pollution coming from the Mooiplaats side but the upstream unfortunately they do not have the mandate to do anything about that as it is the responsibility of DWS.</li> <li>• <i>J Van Wyk</i> they will be doing a complete picture as the department to find out who are the culprits who a polluting the water.</li> <li>• <i>L Nqelenga</i> urged everyone who is authorized to comply with the license conditions given to them; they want to assist everyone whether it's agriculture, industry or mining to comply to what has been given in their conditions.</li> <li>• <i>L Marais</i> mentioned that the pollution source is the same as the one from Vunene as they also got high water qualities and they can't basically comply with the in stream water qualities as they are supposed to.</li> <li>• <i>A shibambo</i> asked on the coal disposal facility which was reported that it sometimes over flow was it as a result of rainfall or there are some activities taking place.</li> <li>• <i>L Marais</i> responded that it was a pipe which slipped from a pump on the 6<sup>th</sup> December 2018 and this happened quit a distance from the witpuntspruit though that water could have been washed down during rain.</li> <li>• <i>L Marais</i> also informed the forum that Mooiplaats is in a process to apply for a new area to mine.</li> </ul>	
8.10	<p><b>UMLABU COAL MINE</b></p> <ul style="list-style-type: none"> <li>• <i>W Esterhaizen</i> said that he will not give a presentation today but as it is known that Umlabu is a sensitive case; they have applied for a WUL and it's still in the process.</li> <li>• <i>W Esterhaizen</i> Umlabu is under care and maintenance</li> <li>• <i>W Esterhaizen</i> indicated that he will be able to email water quality results, at the moment nothing much changed as the EC &amp; sulphates still remain on unacceptable levels.</li> <li>• <i>W Esterhaizen</i> is he mentioned that the mine is under care and maintenance but the results show that there is some activities happening and they are not sure what is happening.</li> <li>• <i>R Ndou</i> indicated that on the previous forum they reported that there were no activities but other forum members indicated that the wash plant was operational so currently is it still happening.</li> <li>• <i>S Nyathikazi</i> responded that this is still a sensitive case and they have issued them with a directive to cease all operations until such time that the operation/water uses are authorized in terms of the National water act; he also stated that in terms of the activities from what he knows they are not supposed to be operational.</li> <li>• <i>R Ndou</i> also mentioned that it the last forum it was mentioned that there are trucks seen coming in and out of their operations.</li> </ul>	<i>Wian Esterhaizen</i>

	<ul style="list-style-type: none"> <li>• <i>S Nyathikazi</i> indicated that he guarantees the forum that in terms of the directive given they are not supposed to be operational. <b>(a detailed presentation will be distributed with the minutes)</b></li> </ul>	
8.11	<p><b>VUNENE COAL MINE (Usuthu Colliery)</b></p> <ul style="list-style-type: none"> <li>• <i>Z Masina</i> presented the catchment activities for <i>Vunene coal mine</i> as follows: she said that she will start with giving the background. <i>Vunene mining</i> started mining in 1964 underground mining by Trans-natal and Eskom. In 1989 it changed the name to BHP Billiton (BECSA) that is now called South 32. In 1992 during closure of the Camden power station, Underground operations ceased and the mine was placed under care and maintenance. Eskom contracted BECSA to continue with care and maintenance of the underground workings, and continued with care and maintenance until 2008. In 2008 <i>Vunene mining</i> applied for a prospecting right and mining right for the area, then later started mining the reserves using Open Cast Method. In March 2017 Open cast workings were put on hold and only underground workings are operational.</li> <li>• <i>Z Masina</i> also stated that <i>Vunene Mining</i> is currently operating Underground mining: Drill &amp; blast and also Continuous Miner (CM). <i>Vunene Mining</i> is now owned by Into-Africa mining PTY LTD.</li> <li>• UC-W3 -Upstream of Witpundspruit- At this point they had unacceptable levels of EC, chloride and sulphates; the PH was ideal and alkalinity and nitrate was tolerable to acceptable. The quality of water is influenced by the Humanspruit which is contaminated by the acidic decant from the historical mine near Penumbra mine.</li> <li>• UC-W6 - After Witpundspruitand Humanspruit confluence- they had unacceptable levels of PH, EC, chlorine and sulphates. Alkalinity and faecal coliforms were acceptable, ammonia was ideal and the nitrate was tolerable.</li> <li>• UC-W7 - Upstrem Humanspruit- they had unacceptable levels of PH, EC, sulphates and chloride in February; alkalinity and faecal coliforms were ideal, ammonia did not comply in March. At this point the nitrate and chloride was tolerable.</li> <li>• UC- W8 - Bridge at Usutu Witpundspruit- at this point they had unacceptable levels of PH, EC, chlorine and sulphates. Alkalinity and faecal coliforms were acceptable, ammonia was ideal and the nitrate was tolerable.</li> <li>• UC- W10 - After sewage works- they had unacceptable levels of PH, EC, chlorine and sulphates. Alkalinity and faecal coliforms were acceptable, ammonia was ideal and the nitrate was tolerable. In March they had a problem with their chlorination system and they did report it.</li> <li>• UC-W14 -Witpundspruit at Mooiplaats- It can be seen that there water qualities are drastically improving and they do not know what could have caused that, they did an investigation and they found something which looks like soap foam in the water, they did this with</li> </ul>	<i>Zanele Masina</i>

	<p>Camden Power station and they could not find was changing the water quality all of a sudden. The ammonia and nitrate were tolerable, EC and alkalinity. The PH and faecal coliform were ideal, chlorine and sulphates were acceptable.</p> <ul style="list-style-type: none"> <li>• UC-W17 Downstream Witpundspruit N2- they had unacceptable level of PH, EC, Chloride and sulphates, ammonia and nitrates were tolerable, the alkalinity and faecal coliforms were ideal.</li> <li>• UC-W18 -Vaal River- the PH, Ammonia and nitrate were tolerable. They also had unacceptable levels of EC, chloride, sulphates and the alkalinity did not comply in March and April and faecal coliforms did not comply in March.</li> </ul>	
<p><b>8.12</b></p>	<p><b>PENUMBRA COAL MINING</b></p> <ul style="list-style-type: none"> <li>• <i>M Mazibuko</i> started by giving the background of PENUMBRA COAL MINE; he said that they consist of two facilities which are <i>PENUMBRA SHAFT &amp; DELTA</i>; both the facilities have their own Licenses and the reasons for that was because they were owned by different owners. They use a method of drill and blast; they lifespan of the mine is expected to be 12 years and they employ ±180 employees; their production target is ± 18 000 tons per month.</li> <li>• <i>S Mazibuko</i> presented the Penumbra Shaft Area – Surface Water Quality Results as follows:</li> <li>• At monitoring point SWMP 1- this point was complainant as most of the parameter has shown tolerable-acceptable &amp; ideal water qualities. The only noncompliance was PH in April.</li> <li>• At monitoring point SWMP 3- there was none compliances of EC, chloride, sulphates &amp; Faecal Coliforms in March. The PH was ideal and the Nitrates were acceptable for the quarter.</li> <li>• At monitoring point SWMP 11- this point is the same as point SWMP 3 but there were an increase nitrates and a decrease chlorides</li> <li>• At monitoring point PCD- This point is the same as point SWMP 3 &amp; 11 though there was an increase of NITRATE in February and April.</li> <li>• At monitoring point SWMP 9- This point was the same as the other points which are SWMP 3, SWMP 11 &amp; PCD; with just as increase in nitrate &amp; faecal coliforms in March.</li> <li>• At monitoring point SWMP 10 and SWMP 8- there was none compliance of EC in March and April even though the same parameter was tolerable in February for point SWMP 10; the other parameters on this point were tolerable-acceptable and ideal water qualities for the quarter.</li> <li>• At monitoring point SWMP 2- there results are very high and there were none compliances of EC, PH &amp; SULPHATES; the other parameters were tolerable-acceptable and ideal.</li> <li>• <i>M Mazibuko also said that at DELTA</i> area they have the old Loubert colliery which is a historical mining area. The area was just a push of for material and it was not rehabilitated. There is an old orbit and a discard dam; they also have a PCD. The activities they have at DELTA are crushing and Screening, Loading coal on trains &amp; Discard Dump.</li> <li>• <i>S Maszibuko</i> presented the DELTA water qualities as follows:</li> <li>• At monitoring point SWMD 02- they had unacceptable levels of EC, CHLORIDE, SULPHATES and Faecal coliforms in February.</li> </ul>	<p><i>Mthokozisi Mazibuko</i></p>

	<ul style="list-style-type: none"> <li>At monitoring point SWMD 03- they had unacceptable levels of EC, PH, chloride, sulphates and Faecal coliforms in February.</li> <li>At monitoring point SWMD 04- they had unacceptable levels of EC, PH and SULPHATES; the Faecal coliforms was ideal and the chloride only had unacceptable levels in April.</li> <li>At monitoring points SWMD 05, SWMD 06, SWMD 07, SWMD 08 and SWMD 01- They had unacceptable levels of EC, PH &amp; SULPHATES; the CHLORIDE was ideal-acceptable; nitrates was acceptable and the faecal coliforms was ideal.<b>(A detailed presentation will be distributed with the minutes)</b></li> <li><i>C Makwela</i> mentioned that they must include ground water monitoring.</li> <li><i>J Van Wyk</i> said that in terms of the departmental responsibilities it's a good lesson to learn so that we can mitigate the problem with the operating mines in case they close so that when it closes is the mine going to be positive or there will be a decant or some sort, we can plan for such kind of outcomes.</li> <li><i>R Ndou</i> added that when they close they will say that the mine is under care and maintenance and only to find out that they are gone.</li> <li>It was agreed Forum stakeholders with none compliances must present ground water monitoring.</li> </ul>	
8.13	<b>Silver lakes (Uitgevalen and Liliefontein collierie).</b> <ul style="list-style-type: none"> <li>(Absent without an apology)</li> </ul>	
8.14	<b>Govan Mbeki Municipality.</b> <ul style="list-style-type: none"> <li><i>A Mangena</i> presented the catchment activities for Govan Mbeki Local municipality and reported that on Microbiological they did not comply.</li> <li><i>A Mangena</i> reported on Bethal WWTWs chemical monitoring was 83.3. Ammonia was 0.78 in January and in March it was 2.9. On COD the plant is not doing well. On nitrate the plant is doing well at 0.71 mg/l. the plant is also doing well in terms of phosphates</li> <li><i>A Mangena</i> reported that in terms of physical the plant 66.7%, on conductivity the plant is not doing well for the past five months. In terms of PH the plant is doing well.</li> <li><i>A Mangena</i> On suspended solids the plant did not do well.</li> <li><i>A Mangena</i> reported that they have 11 pump stations and they are all operational the Mark street pump station there was Electric failure on the 27 May 2019<b>(A detailed presentation will be distributed with the minutes)</b></li> </ul>	<i>Alfred Mangena</i>
8.15	<b>GERT SIBANDE DISTRICT MUNICIPALITY</b> <ul style="list-style-type: none"> <li>(Absent without an apology)</li> </ul>	
8.16	<b>MSUKALIGWA MUNICIPALITY</b> <ul style="list-style-type: none"> <li>Nothing to present.</li> </ul>	
8.17	<b>PIXLEY KA SEME MUNICIPALITY</b> <ul style="list-style-type: none"> <li>(Absent without an apology)</li> </ul>	

8.18	<b>LEKWA LOCAL MUNICIPALITY</b> • (Absent without an apology)													
8.19	<b>Department of Mineral Resources</b> • (Absent without an apology)													
8.20	<b>DARDLEA</b> • (Absent without an apology)													
8.21	<b>DWS Central operations.</b> • No representative present.													
9	<p><b>Water Use License Status</b></p> <ul style="list-style-type: none"> <li><i>B Malatsi</i> presented the WULA status for Grootdraai Dam catchment as follows:</li> </ul> <p><b>Water Use Licence Status</b></p> <table border="1"> <thead> <tr> <th>No</th> <th>Name</th> <th>Status</th> <th>Comm</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><i>Eskom Majuba power station</i></td> <td>Final assessment.</td> <td></td> </tr> <tr> <td>2</td> <td><i>Eskom Camden power station</i></td> <td>Finalized</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li><i>R Ndou</i> mentioned that the GA has been extended until the new GA is gazetted.</li> </ul>	No	Name	Status	Comm	1	<i>Eskom Majuba power station</i>	Final assessment.		2	<i>Eskom Camden power station</i>	Finalized		<i>Bishop Malatsi</i>
No	Name	Status	Comm											
1	<i>Eskom Majuba power station</i>	Final assessment.												
2	<i>Eskom Camden power station</i>	Finalized												
10	<b>Pollution incidents</b> • (no pollution incidents were reported)													
11	<b>WASTE WATER TREATMENT WORKS (WWTW) TASK TEAM</b> • Nothing was reported.													
12	<b>Catchment Management Agency Process</b> • <i>L Nqelenga</i> said that the status remains as was last reported in to the forum in case of any developments they will update stakeholders in the next forum.	<i>Luvuyo Nqelenga</i>												
13	<b>Discussions of the Additions to the agenda</b>													
13.1	<p><b>RESOURCE MANAGEMENT PLAN FOR GROOTDRAAI DAM</b></p> <p>The Minister has the responsibility to ensure that the water is allocated beneficially and equitable, and has the power to regulate the use, flow and control of all water in the country.</p> <p><b>AIMS OF THE RMP</b></p> <ul style="list-style-type: none"> <li>Ensure public safety with regards to the use of inland vessels {compliance with the Merchant Shipping (National Small Vessel Safety) Regulations, 2007}.</li> <li>Avoid conflict of recreational users through zonation plans (zoning of specific use such as boating (motorized and non-motorized), fishing, no-go areas, etc...</li> </ul>	<i>Steven Nhlabathi</i>												

- Ensure that water resource is protected (avoiding water pollution, spread of alien invasive and aquatic weeds including fish species, etc.).
- Implement Boat wash bays to control the spread of alien aquatic weeds.
- Manage developments along the dam basin.
- Ensure equitable access to the dams.
- Create effective institutional arrangement for the management of the dam.
- Promote community participation and beneficiation.
- Unlock economic opportunities at the dams (Public Private Partnerships-PPPs).
- Implement Aids to Navigation (AtoN) and demarcation markers.
- Manage all types of recreational events on GWWs.

#### **FUNCTIONS OF THE DAM MANAGEMENT COMMITTEE**

- Seeking resolution for general management issues
- Monitoring the practical implementation of the RMP
- Reviewing the feedback received from Interested and Affected Parties
- Ensuring that operational rules are adhered to
- Conveying the management objectives and decisions pertaining to the dam to the relevant stakeholders
- Management of the Incident Management System and wash bay
- Water quality discussed to ensure that the water is fit for intended use

#### **WATER QUALITY**

- The major impacts on the water quality in the catchment are associated with diffuse sources including agricultural fertilizers, agricultural insecticides, pesticides and fungicides, sewage run-off and atmospheric deposition; and with point sources which include mining effluent, domestic sewage effluent and industrial effluent and organic pollutants (AfriDev, 2006).
- The water quality of the Vaal headwater deteriorates significantly in the Bethal area, upstream of Grootdraai Dam possibly due to extensive coal mining activity and sewerage inflow from the numerous small towns in the area (ORASECOM, 2008). Further, high loads of phosphate and nitrogen

	<p>enter the Vaal system via the Blesbokspruit and Leeuspruit upstream of Grootdraai Dam due to sewage and agricultural pollution.</p> <p>•Acid Mine Drainage (AMD) is also a potential problem although at this point the risk of this is low (McCarthy and Humphries, 2012) due to the fact that the Dam has a large volume and there are no large wetland's in the catchment which can accumulate pollution in large enough volumes. <b>(A detailed presentation will be distributed with the minutes)</b></p>	
14	<p><b>Next Meeting</b> 27 August 2019, venue to be announced.</p>	All
15	<p><b>Closure</b> A <i>Shibambo</i> thanked <i>Vunene Coal mine</i> for providing the forum with a venue &amp; breakfast, he further thanked everyone for participating in the Forum and declared the meeting adjourned at 13H15.</p>	<i>Acting Chairperson(A Shibambo)</i>

## Appendix I

### Water Use License Status

No	Name	Status	Comments
1	<i>Eskom majuba power statio</i>	Final assessment.	
2	<i>Eskom Camden power station</i>	Finalized	

## Appendix II

### Acronyms

<b>P/S</b>	<b>Power Stations</b>
<b>EC</b>	<b>Electrical conductivity</b>
<b>NH3</b>	<b>Ammonia</b>
<b>COD</b>	<b>Chemical Oxygen Demand</b>
<b>pH</b>	<b>Percentage of Hydrogen</b>
<b>SS</b>	<b>Suspended Solid</b>
<b>WWTWs</b>	<b>Waste Water Treatment Works</b>
<b>DWS</b>	<b>Department of Water and Sanitation</b>
<b>DMR</b>	<b>Department of Mineral Resources</b>
<b>DARDLEA</b>	<b>Department of Agriculture, Rural Development, Land and Environmental Affairs</b>
<b>CMA</b>	<b>Catchment Management Agency</b>
<b>WRC</b>	<b>Water Research Commission</b>
<b>GSDM</b>	<b>Gert Sibande District Municipality</b>

### GROOTDRAAI DAM FORUM

Date: 28 May 2019

NO	ACTION	ACTION BY	TIME FRAMES	PROGRESS
1	Feedback on the criminal case against Ermelo landfill site from DARDLEA ( <b>Carried to the next forum</b> ). -No representative from DARLEA was present. - <i>Clement Makwela</i> to request them to send a short brief.	<i>Clement Makwela</i>		<b>Still standing</b>
2	<i>Mashudu Gangazhe</i> to invite forum stakeholders who have been absent in the forum for long. - <i>Clement Makwela</i> to use the old letter to send out invitations to those who have not been present in the forum. - <i>Clement Makwela</i> said that the letters are there but he is waiting for the forum chairperson to sign them. ( <b>Absent with an apology and the action is carried to the next forum meeting</b> )	<i>Mashudu Gangazhe/Clement Makwela</i>	Before the next forum	<b>Still standing</b>
3	<i>Mashudu Gangazhe</i> said that he will send the colour coded water quality results before Thursday 29 <sup>th</sup> November 2018. ( <b>Carried to the next forum</b> ) - <i>Awande Nojekwa</i> said that he will send the results before the 1 <sup>st</sup> of March 2019 on behalf of <i>M Gangazhe</i> . ( <b>Carried to the next forum</b> )	<i>Awande Nojekwa/Mashudu Gangazhe</i>	1 <sup>st</sup> March 2019	<b>Still standing.</b>
4	<i>Abraham Maphoso</i> to present the ground water quality results in the next forum meeting ( <b>Absent without an apology and the action is carried to the next forum meeting</b> ).	<i>Abraham Maphoso</i>	In the next forum meeting	Still standing
5	<i>L Totsa</i> to present the ground water quality results for Tutuka P/S in the next forum meeting. ( <b>Carried to the next forum</b> )	<i>Lutho Totsa</i>	in next forum meeting	
6	<i>Clement Makwela</i> to remove Majuba railway line Project from the agenda.	<i>Clement Makwela</i>		
7	Forum stakeholders with none compliances to present ground water monitoring.	<i>All</i>	In the next forum meeting	

NO	ACTION	ACTION BY	TIME FRAMES	PROGRESS