



Directorate: Water Ecosystems

**DETERMINATION, REVIEW AND IMPLEMENTATION OF THE RESERVE IN  
THE OLIFANTS/LETABA SYSTEM**

**KEY STAKEHOLDER MEETING**

**DRAFT MINUTES OF MEETING**

**DATE:** Wednesday, 25 May 2016  
**TIME:** 10:00 –13:30  
**VENUE:** Forever Resorts, Loskop Dam Conference Facility

**Abbreviations Table**

3D	Three Dimensional
BHN	Basic Human Needs
DEA	Department of Environmental Affairs
DMR	Department of Mineral Resources
DWS	Department of Water and Sanitation
EIA	Environmental Impact Assessment
EWR	Ecological Water Requirement
GW	Groundwater
Kms	Kilometres
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
PSCM	Project Steering Committee Members
QC	Quaternary Catchment
Qn	Quantity
Ql	Quality
REC	Recommended Ecological Category
RQOs	Resource Quality Objectives
SANBI	South Africa National Biodiversity Institute
WMA	Water Management Area
WRC	Water Research Commission
WULA	Water Use License Application
WUL	Water Use License

		<b>ACTION</b>
<b>1.</b>	<b>WELCOME AND INTRODUCTION OF MEMBERS</b>	
	The Chairman, Mr Atwaru (Department of Water and Sanitation (DWS), Director: Reserve Determination) welcomed everyone to the Key Stakeholder Meeting for the Determination, Review and Implementation of the Reserve in the Olifants/Letaba System.  Mr Atwaru made the following points:	

	<ul style="list-style-type: none"> <li>• The Resource Quality Objectives (RQO) and classes have been gazetted for the Olifants River. The comments received from the stakeholders have been incorporated into the RQO that have now been gazetted for implementation.</li> <li>• The Classes and RQO for the Letaba River Catchment have also now been gazetted and a comment period of 60 days is allowed. Comments received from the stakeholders will be assessed and where relevant it will be incorporated into the updated RQOs and Classes gazette before the final RQO and classes will be gazetted.</li> <li>• Once the final classes and RQO have been gazetted, the DWS is required by the National Water Act to determine the Reserve (Sec 16 of the NWA) (both ecological and basic human needs). Up until now, preliminary Reserves have been used for assessing water use licencing (section 21 requirement). The reserve configurations related to the approved classes with its ecological specifications (captured in the RQO) will be gazetted. A comments period will also be allowed after which the the Ecological Water Requirements for the Target Ecological Categories will be gazetted. The requirements for the Reserve set at the EWR sites will be used as the primary indicators for compliance and will form part of the primary water monitoring network.</li> <li>• The Olifants Water Management Area has been well studied. The aim of this project is to use the available information and information obtained via surveys (conducted on a Rapid Reserve level) focusing on priority wetlands, tributaries and areas that have been identified as having serious water quality problems. This information is important for future management and decisions related to water use in the Olifants catchment.</li> <li>• Mr Atwaru further informed the stakeholders that the purpose of the meeting is to share the information obtained thus far, during this project with them, report on the progress made thus far and to take them through the study process. The stakeholders were also informed that they will have another opportunity to comment during the public comment period when the results of the study are Gazetted. This stakeholder process is also an important opportunity for the stakeholders to assist and guide the DWS with their specific local knowledge, their skills and technical expertise. These are needed to add value to the process and to ensure that, at the end of the day, stakeholders and the DWS can be proud of the product achieved and implement the results to obtain sustainable water resource management and protection in the OWMA.</li> </ul> <p>PSCM and stakeholders were given an opportunity to introduce themselves.</p> <p>Stakeholders were informed that an electronic copy of the presentations will be e-mailed to them.</p>	Nicolene Venter
<b>2.</b>	<b>ATTENDANCE AND APOLOGIES</b>	Appendix A
	<p>The attendance register is included as <b>Appendix A</b>. The following apologies were received at the meeting:</p> <p>Mr Norman Nokerl, Lepelle Northern Water  Mr Mark Surmon, Phalaborwa Mining Company Ltd  Mr Steven Bloy, South 32  Mr John Dini, SANBI  Dr Jo Burgess, WRC</p>	
<b>3.</b>	<b>AGENDA</b>	
	Mr Yakeen Atwaru presented the agenda to the stakeholders and it was accepted without any changes.	
<b>4.</b>	<b>PRESENTATIONS</b>	
<b>4.1</b>	<b>RESERVE DETERMINATION PROJECT - DWS</b>	Presentation Appendix B
	<p>Ms Gladys Makhado presented information on the following key points:</p> <ul style="list-style-type: none"> <li>• Protection of the water resource;</li> <li>• The series of measures of the Resource Directed Measures;</li> </ul>	

	<ul style="list-style-type: none"> <li>• The contextualization of Water Resource Protection;</li> <li>• The Reserve – Water Resources in the Catchment;</li> <li>• The Study Area and sub catchments</li> <li>• Background to the Olifants WMA Reserve study; and</li> <li>• Determination and Gazetting of the Reserve in the Olifants WMA.</li> </ul> <p>The presentation also covered the DWS' stakeholder engagement activities such as:</p> <ul style="list-style-type: none"> <li>• The purpose of the stakeholder engagement;</li> <li>• The targeted stakeholders; and</li> <li>• Communication Methods and approach.</li> </ul> <p>Ms Makhado requested stakeholders to please inform the project team if a key stakeholder or stakeholder grouping (as presented) was omitted from the stakeholder list so that they can be contacted and invited to the next round of key stakeholder meetings.</p> <p>All information regarding the Reserve can be obtained from the DWS website: <a href="https://www.dws.gov.za/dm/currentstudies/default.aspx">https://www.dws.gov.za/dm/currentstudies/default.aspx</a>. Stakeholders are welcome to contact Ms Makhado at tel. 012 336 6744, cell 082 6586849 or e-mail <a href="mailto:makhadog@dws.gov.za">makhadog@dws.gov.za</a> or Nicolene Venter (Public Participation) at tel. 011 207 2060, cell 083 377 9112 or e-mail <a href="mailto:nicolenev@zitholele.co.za">nicolenev@zitholele.co.za</a>.</p>	All
	<b>Discussions</b>	
4.1(a)	<p><b>Mr Themani Mashamba, South 23:</b> Enquired as to what engagement was undertaken with the regulatory authorities i.e. Department of Mineral Resources (DMR) and Department of Environmental Affairs (DEA) with regards to the alignment of the preliminary Reserve determinations and their roles and responsibilities or authorisation processes that impacts on the water resource and which could potentially impact the Class, RQS and EWR of the Reserve determined.</p> <p><b>Mr Yakeen Atwaru:</b> The Preliminary Reserve process does not require extensive external stakeholder engagement, although the Department does consult with stakeholders through the PSCM and Public meetings if the Reserves are conducted on an Intermediate to comprehensive level. This is specifically done in anticipation of the future Classification studies. For the Rapid and desktop Reserves an internal –process and tool that is used by the department to provide the ecological information required to assess an Water Use License Application (WULA). The latter two processes focuses mainly on ecological requirements (no to limited field surveys) and basic human needs. As stated above and in additions comprehensive engagement with stakeholders is done when the DWS embarks on the Classifications process and thereafter the Gazetting of the Reserve.</p>	
4.1(b)	<p><b>Mr Themani Mashamba, South 23:</b> Most of South32 WULs were issued through the preliminary Reserve determination. What would be the possible impact on these WULs granted once the Reserve has been approved.</p> <p><b>Ms Gladys Makhado:</b> WUL has a review period i.e. 5 years; the new information will be used for the review and not the preliminary Reserve information.</p> <p><b>Mr Yakeen Atwaru:</b> The licences issued using the preliminary Reserve will be valid. Once the Reserve is Gazetted, there will be other processes namely the Reserve implementation plan, compliance and monitoring to detect trends. If trends are detected that are on the downward trajectory, the DWS will relook at licence applications and DWS could embark on a compulsory licensing process.</p>	
4.1(c)	<p><b>Mr Nico Dooge, Glencore Coal:</b> The question of the legal standing of current WULs issued under the preliminary Reserves has been answered. The stakeholders were informed that recently DWS held a work session on an Integrated Water Quality Management Plan (IWQMP). The question is how the Reserve study and the IWQMP will be integrated</p>	

	<b>Mr Trevor Coleman, Golder Associates Africa:</b> More detail will be provided in the presentation but the main purpose of the IWQMP is to develop the plan to achieve the water quality objectives set as part of the Reserve for the rivers and groundwater.	
4.1(d)	<b>Mr Thambani Mashamba:</b> In the context of these projects, did the project team do a risk assessment to determine what the impact of this Reserve Determination will be on business in general.  <b>Mr Yakeen Atwaru:</b> The question asked is a step in the Classification Process, and stakeholder engagement forms a large part of that process. The purpose of the Classification process is to get a balance between resource protection and development. Some areas in a catchment could be pristine and a higher level of protection maybe set for these areas while in other instances, the resource may be developed to support economic development. These areas will be given a lower level of protection. A socio economic analysis was carried out during the Classification process for different development scenarios. It is important to note that the Reserve Determination cannot be at odds to the Classification process, they need to be aligned. It was reiterated that the Classification process is a Gazetted process and goes through a robust stakeholder engagement process.	
4.1(e)	<b>Mr Viktor Cogho, Glencore Coal:</b> Just to confirm the timelines, the project started in July 2015, and it is an 18 month project, therefore it should be Gazetted at the end of this year. <b>Ms Gladys Makhado:</b> Confirmed it is correct.	
<b>4.2</b>	<b>OLIFANTS/LETABA SYSTEM RESERVE STUDY PRESENTATION – Mr Trevor Coleman, Golder Associates Africa</b>	<b>Appendix C</b>
	<p>Mr Trevor Coleman gave a brief introduction to the Reserve Determination study:</p> <ul style="list-style-type: none"> <li>• Introduced the study and presented the objectives of the study viz <ul style="list-style-type: none"> <li>○ to provide feedback on the progress made to date on the finalisation of the Reserve;</li> <li>○ Provide the necessary information to stakeholders on the ecological status, assessment of wetlands and groundwater, key areas of ecological protection, and to engage with them on the proposed scenarios to assess ecological consequences; and</li> <li>○ An overview of the way forward.</li> </ul> </li> </ul> <p>Outlining the processes undertaken to date were:</p> <ul style="list-style-type: none"> <li>• Water Resource Classes – Completed</li> <li>• Resource Quality Objectives – Completed</li> <li>• Preliminary Reserve – Current</li> </ul> <p>The Reserve will be Gazetted once the Reserve Determination process is completed.</p> <p>This study is being undertaken to identify gaps in the priority catchment areas i.e. ecological specifications required for flow and quality</p> <p>The presentation also covered aspects such as (presentation attached):</p> <ul style="list-style-type: none"> <li>• Why the Olifants Catchment Area;</li> <li>• The Study Objectives;</li> <li>• The Water Resource Classes set;</li> <li>• The present Ecological State;</li> <li>• Priority wetlands identified</li> <li>• Hot spot areas related to water quality;</li> <li>• The Shingwedzi catchment has been included;</li> <li>• Basic Human Needs i.e. water for drinking, food preparation &amp; personal hygiene; and</li> <li>• Status Quo Summary.</li> </ul>	

	The same presentation will be presented at the key stakeholder meeting taking place on Thursday, 26 May 2016 in Tzaneen.	
	<b>Discussions</b>	
4.2(a)	<p><b>Mr Thembani Mashamba:</b> With the RQOs and Water Resource Management in place, is there a collaboration / interaction between the DMR and the DWS to deal with the abandon mines that could have a negative impact downstream.</p> <p><b>Mr Yakeen Atwaru:</b> There is a Directorate within DWS that is dealing with this matter. There are actions being proposed to address the possible negative impacts of the defunct mines.</p>	
4.2(b)	<p><b>Mr Thembani Mashamba:</b> Reference to the statement made in the presentation regarding the Reconciliation Strategy done for the Olifants River. It was asked for clarification purposes that the strategy was more biased toward Limpopo from a flow perspective, and the quality aspect was not integrated. Therefore, how does the team intend to use it?</p> <p><b>Mr Trevor Coleman:</b> The team is going to use the planning model and look at some of the consequences of setting different EWRs for the supply to the water users. In the Water Quality Management Plan the team is going to calibrate water quality models for the whole Olifants, i.e. to understand the sources of i.e. amongst others sulphate, the assimilative load of other nutrients and salts and define measures on how to manage the system.</p>	
4.2(c)	<p><b>Mr Reginald Mabalane, Chamber of Mines:</b> The Mining PAKISA did not touch on impacts related to the impact that abandoned mines have on the various water resources. The team must take cognisance of this issue as it will have a direct impact on the Reserve Study and meeting the RQOs. It was recommended that an active engagement take place with the DMR regarding this matter.</p> <p><b>Mr Yakeen Atwaru:</b> It was the DWS's understanding that the Mine PAKISA was a comprehensive seminar addressing the matter, but the comment made will be taken over as an action for the team.</p>	Project Team
4.2(d)	<p><b>Ms Thihanedzwi Ratsihlvumo, Cullinan Diamond Mine:</b> In terms of water quality issues, did the team take into consideration the new mines especially in the Wilge River tributaries.</p> <p><b>Mr Trevor Coleman:</b> That will be for future work. What the team is presenting here is setting the conditions required for the water resources. It is up to the WULA to look at load allocations for new mines that will not impact on compliance with the EWR and RWO's.</p>	
4.3	<b>ECOLOGICAL STATUS ASSESSMENT PRESENTATION – Mr Warren Aken, Golder Associates Africa</b>	Appendix C
	<p>Mr Warren Aken presented a summary of the ecological status information as obtained during the team's field survey, the site selection process and how areas were prioritised for sampling to address information gaps. In terms of the EWR sites visited, a brief overview was presented as to what was found at these sites.</p> <p>The sites visited included:</p> <ul style="list-style-type: none"> <li>• Upper and Middle Olifants Catchment: <ul style="list-style-type: none"> <li>• Elands River</li> <li>• Lower Wilge River</li> <li>• Olifants River</li> <li>• Wilge River</li> <li>• Klein Olifants River</li> <li>• Selons River</li> <li>• Kranspoortspruit</li> </ul> </li> <li>• Middle and Lower Olifants Catchment: <ul style="list-style-type: none"> <li>• Olifants River</li> <li>• Spekboomspruit</li> <li>• Upper Blyde</li> </ul> </li> <li>• Lower Olifants Catchment:</li> </ul>	

	<ul style="list-style-type: none"> <li>• Olifants River</li> <li>• Lower Blyde</li> <li>• Letaba Catchment:</li> <li>• Broederstroom</li> <li>• Letaba River</li> <li>• Letsitele</li> <li>• Shingwedzi Catchment:</li> <li>• Shingwedzi River</li> </ul> <p>The challenges that needed to be taken into consideration were:</p> <ul style="list-style-type: none"> <li>• Water quality issues impacting on large parts of the system (mining and urbanization);</li> <li>• Low flows resulting from the drought in the catchment causing systems to be under stress;</li> <li>• Key conservation areas that needs to be protected; and</li> </ul> <p>Important fish species.</p>	
	<b>Discussion</b>	
4.3(a)	<p><b>Mr Themban Mashamba:</b> One would expect that the return flows from farming activities would have an impact on the water quality in the Middle and Lower Olifants. Similarly large salt loads are being released from the various developments in the Phalaborwa Barrage area in the lower Olifants River. It was asked whether there is a monitoring point at this area to quantify these impacts on the system.</p> <p><b>Mr Warren Aken:</b> Monitoring stations are spread out throughout the study area which also includes the Phalaborwa area where salt releases are being recorded. Monitoring stations are also set up around hub areas i.e. farming hubs and waste water treatment plants. The team is not focusing on repeating monitoring work currently being done i.e. by the mining houses, but rather to take the information from these monitoring stations and incorporate it into this study.</p>	
4.3(b)	<p><b>Mr Endlani Makamu, DEA:</b> It was noted that not much was presented on alien invasive plants.</p> <p><b>Mr Warren Aken:</b> There are a large number of invasive plants in the catchment areas and the only area where these do not occur significantly is in the Kruger National Park. The list and areas where these alien invasive plants occur are dealt with in the detailed report.</p>	
4.3(c)	<p><b>Mr Themban Mashamba:</b> The Olifants and Letaba Rivers discharge into Mozambique. Deterioration in the water quality and reductions in flow due to upstream use will impact on Mozambique. The determination of the extent of these upstream impacts could be a challenge to the project team and Mr Mashamba enquired how this will be dealt with. At the Olifants River Forum this concern is continuously being pointed out with mining regarded by many as the biggest culprit. A sense of assurance is required that the deterioration of the impacts upstream is within limits.</p> <p><b>Mr Yakeen Atwaru:</b> There are bilateral agreements between the countries bordering South Africa. The DWS has representation from their Water Resources Planning Directorates participating in these meetings. The bilateral agreements are closely monitored to ensure that they are not compromised especially in terms of flow quantities and water qualities.</p> <p><b>Ms Barbara Weston, DWS:</b> South Africa have got a very good Water Act however, the DWS cannot impose the Act onto Mozambique and Zimbabwe to ensure their compliance. It was confirmed that this matter is a challenge to the DWS.</p> <p><b>Mr Yakeen Atwaru:</b> The point raised is noted and will be forwarded to the relevant Committee.</p>	DWS
4.3(d)	<p><b>Mr Endlani Makamu, DEA:</b> The concern was raised regarding the use of chemicals to eradicate alien invasive plants as these chemicals have an impact downstream and especially now that the system is under stress due to low flows.</p> <p><b>Mr Warren Aken:</b> The Upper Olifants catchment has alien invasive trees as well as the Letaba Catchment, especially in the Letsitele and middle Selati there are invasive species smothering the system. The biological control of these species needs to be looked at. Working for water</p>	

	has worked in the catchment before and should be made aware of the priority areas that need rehabilitation once the TEC's have been gazetted.	
	<i>Ms Barbara Weston:</i> Working for water has worked in the catchment before and should be made aware of the priority areas that need rehabilitation once the TEC's have been gazetted. Working for wetlands must also be made aware of priority wetlands that is going to require attention to maintain or improve the ecological state. These actions should be included as part of the implementation plan.	Study team
<b>4.4</b>	<b>WATER QUALITY STATUS AND ECOLOGICAL CONSEQUENCES PRESENTATION – Mr Trevor Coleman, Golder Associates Africa</b>	<b>Appendix C</b>
	Mr Coleman informed the stakeholders that the team would appreciate any inputs regarding the water quality status and the ecological consequences identified. Especially the priority areas identified by the project team. He referred to a map displayed on the wall showing the location and extent of the priority areas. Part of the Reserve Study process is to set up eco specifications (Eco-specs) at nodes located at the outlet of the priority areas in the system. The planning model that was used for the Reconciliation Study will be used to determine the consequences of the flow component of the eco specs on the supply of water to current and future users. A scenario requested by the Joint Water Forum representing the mines in the Middle Olifants and Mogalakwena area was included in the scenarios to be analysed.	
	<b>Discussion</b>	
4.4(a)	<b>Mr Nico Dooge:</b> With regards to priority areas, how did you deduce the boundaries? <i>Mr Trevor Coleman:</i> The priority areas were determined at specialist workshops involving the ecologists. Factors such as the topography, PES, ecological sensitivity and importance and the role that an area plays in the catchment were used to determine the priority areas. The demands on a system was also included as a defining factor.	
4.4(b)	<b>Mr Nico Dooge:</b> It was suggested that this study provides the opportune process to identify "no go" areas within the catchment where there is still good water quality and to Gazette those catchments / areas accordingly. Should this suggestion be taken forward, the DWS needs to inform authorities / legislators (i.e. the DEA / DMR) of such no go areas in advance. <i>Ms Barbara Weston:</i> The suggestion is supported by the DWS and will be looked into.	DWS
4.4(c)	<b>Mr Thembani Mashamba:</b> The suggestion is supported in principle, but cognisance of Section 24 of the National Water Act needs to be kept in mind. Therefore one needs to strike a balance. It is not sure if the suggestion will stand the test of time. <i>Ms Barbara Weston:</i> The Study Area is already stressed. The departure point from an ecological point of view is to get the system sustainable. In many parts of the catchment the water resources are very close or even past their resilience capability (PES= D and lower, with others on a serious negative trajectory). <i>Mr Yakeen Atwaru:</i> It needs to be noted that such a recommendation can be implemented, but this Reserve Determination process is the first step and one needs to look at the whole suite of legislation. The first step would be to declare the area as a protected area or an area that needs special attention with EIAs / WULAs. The DEA can declare an area as an Environmental Management protected area and therefore any development proposal would require more stringent environmental conditions than is currently included in the Environmental Authorisations. This decision needs to be taken in partnership with other legislators.	
4.4(d)	<b>Mr Thembani Mashamba:</b> If consideration is given to the above-mentioned recommendation, how will the current WULs be taken into account i.e. by starting water treatment plants as part of a strategy to manage water? Looking at it going forward there should be positive impacts regarding these types of systems. The question was asked as to whether future positive impacts, such as treated water, will be taken into account in support of a proposed development in a specific area. <i>Ms Barbara Weston:</i> The focus is often placed only on the primary impacts and the secondary impacts are ignored. It is the secondary impacts such as roads that are often the long term impacts. The secondary impacts are often more difficult to mitigate.	

	<p>Internal and external stakeholders were reminded that one of the implementing strategies is the Integrated Water Quality Management Plan which is currently being developed for the Olifants River. Treated water must comply with the required to the water quality standards that relate to the future use of the treated water.</p> <p>Stakeholders were requested that should they or any of their colleagues be interested in participating in the stakeholder engagement meetings for the development of the water quality management, to contact the DWS team. The study manager for the Olifants Water Quality strategy is Lebo Mosoa and could also be contacted at (mosoal@dws.gov.za) for further enquiries or intended involvement.</p> <p><b>Mr Yakeen Atwaru:</b> It was commented that a lot of good and positive work is being done, such as taking contaminated water and treating it to supply good quality potable water to communities. Generally one only hears bad news and no good news.</p>	Stakeholders
<b>4.5</b>	<b>GROUNDWATER ASSESSMENT PRESENTATION – Mr Eddie van Wyk, Golder Associates Africa</b>	Appendix C
	<p>Mr Eddie van Wyk presented the outcome of the Groundwater Assessment undertaken for the study and covered the following topics:</p> <ul style="list-style-type: none"> <li>• Review of the existing quantification of the groundwater component of the Reserve (Quantity/Quality);</li> <li>• Set conditions for implementation to protect the groundwater resources;</li> <li>• Areas where over-utilization of groundwater resources occur could negatively impact on local water supplies (i.e. Schedule 1, General Authorizations and existing uses) and ultimately, maintaining discharges to surface water resources could become a risk (where groundwater contributes to surface water resources).</li> <li>• Reserve will be expressed as a Water Resource Category (guided by attributes such as Stress Index, GW allocations, Basic Human Needs and EWR (surface water)).</li> </ul>	
	<b>Discussion</b>	
4.5(a)	<p><b>Mr Thembani Mashamba:</b> As presented, there is groundwater monitoring systems in places such as schools and hospitals but what about grave yards. Grave yards are a different form of land use activity, and looking at the sizes of grave yards lately it could be assumed that it is where the biggest threat to groundwater contamination could be coming from. Especially if one takes into consideration those areas that have the potential for groundwater usage. It was queried as to how DWS intends to deal with these types of contamination issues.</p> <p><b>Mr Eddie van Wyk:</b> It would depend on what type of aquifer system one is dealing with i.e. dolomite etc. It would be recommended to make use of a buffer that would allow for "protection zoning", i.e. demarcate a 50 day travel time between these risk sites and a water supply borehole for example. The 50 day travel has been identified as the maximum time that a microbes will last in the subsurface (anaerobic conditions) before dying off. If one assumes that of groundwater flow ~1 m/d, microbes will die off before it reach the point of discharge (i.e. stream or borehole). You could apply this principle in cases such a river drainage channels and other waste dumps where organisms may reside. As Viktor Cogho has noted, water bearing formations such as dolomites is a different issue. One can identify grave yards easily on Google Earth and it would be a recommendation to the DWS to apply the "protecting zoning" principle around grave yards.</p> <p><b>Mr Viktor Cogho:</b> One needs to be aware of the geology when planning for grave yards. Looking at the upper catchment area there are a large number of open cast mines and the zoning as indicated in the presentation are green areas. It is believed that the reason for this is due to the fact that the groundwater gradient is towards the excavations. Local Authorities need to be aware of geological conditions when they plan to develop a grave yard and must avoid the establishing of a grave yard near rivers or water resources.</p> <p><b>Ms Barbara Weston:</b> This is a fact that need to be communicated to the municipalities and they should report on this matter as part of the Water Service Development Plan required by the Water Service Act (and their IDP's). These areas demarcated for grave yards or any other developments that could negatively impact the groundwater, wetland or river must be reflected</p>	

	<p>in the spatial development plans. This is again where the "no-go" areas come in. This is precisely why it is important for key stakeholders such as municipalities etc. to take the time and interest in attending these stakeholder meetings.</p> <p><i>Mr Yakeen Atwaru:</i> It was added that the same geology assessments are applied when looking at waste disposal facilities.</p>	
4.5(b)	<p><i>Mr Viktor Cogho:</i> In reference to the groundwater assessment map, the question was asked what does the cluster of red zone areas represent that are located next to the green mining area in the Upper Olifants.</p> <p><i>Mr Eddie van Wyk:</i> The cluster of red zones is the Delmas area where the area is mostly dolomite aquifers. Impacts such a dewatering (agricultural activities) and water quality pollution (untreated sewerage discharges into local drainages directly linked to groundwater resources, occurred in this area and probably elsewhere as well, but are not monitored..</p>	
4.5(c)	<p><i>Mr Themban Mashamba:</i> In terms of land-use activities versus the Reserve Determination, geologically it might find that the top soil is only 10m deep and the only development that could take place is farming. If one takes the groundwater classification into consideration, the classification could be a limiting factor. The question was asked as to how would the DWS deal with such a situation i.e. considering inter catchment transfer, and will the DWS be in position to facilitate such types of arrangements?</p> <p><i>Mr Eddie van Wyk:</i> If one looks at the borehole yield classification of South Africa which was done when the National Geohydrology Mapping Programme, was drafted. The maps indicate the classifications in terms of borehole yields. These values are based on general borehole sitings, normally with a depth (i.e. max 65 m). There are always possibilities for deeper drilling to intercept additional water bearing formations, i.e. reference was made to work conducted by a Swedish company who used geophysical methods (electrometric) where one could look 500m down into the crust and model the water bearing zones in a 3D context. It is important to note that one should assess whether it will be possible to develop additional groundwater resources in an area, but again look at the water balances, as should one drill deeper and find water it would yield water for the long-term (not sustainable due limited recharge.. The main issue to be addressed is more on a broader scale and not site specific area, with available information, it would guide water users in terms of the potential of an aquifer system.</p> <p><i>Mr Viktor Cogho:</i> It was commented that all proposed developments should have groundwater studies conducted in order to address the direct and indirect issues.</p> <p><i>Mr Themban Mashamba:</i> Responded that the Determination and Classification should not become a limiting factor as one already knows that there could be a potential for groundwater use.</p> <p><i>Mr Eddie van Wyk:</i> The recharge in catchment B51E is 40 million m<sup>3</sup> per annum and the usage is already at 43 million m<sup>3</sup>. The problem is however that most of this water is abstracted from a certain portion of the aquifer systems/quaternary catchment (QC). This makes general allocations problematic and should be addressed through specific assessments in the quaternary catchment. The key point is as one assesses the groundwater quantity of a particular quaternary catchment, the results from different aquifer systems need to be transferred to the QC level. That is why the study team works in terms of quaternary catchments. This could be an unbalanced situation which could be addressed and could affect the issue raised here.</p> <p><i>Ms Barbara Weston:</i> In the National Water Resource Strategy there is a map that indicates the strategic water areas of SA, those components of catchments that yield the largest portion of water. Although they are small in comparison to other catchments that are important and there is a protection component that needs to be considered when looking at those areas. One cannot keep tapping from the main water supply system as this system is supporting other system downstream. The same applies to tributaries, which need to be maintained and protected so that they can support the main stem rivers and act as important refuge area for fauna and flora, especially in stressed times as drought.</p>	

	To come back to the question raised, in the Reserve studies, DWS looks at trade-offs where consideration is given to the ecological consequences to get to the Recommended Ecological Category (REC). In some cases, it is necessary for the DWS to look at trade-offs in terms of an economic hub (i.e. job creation, etc). When the DWS write up the conditions of a WUL, they are required to provide reasons related to the ecological consequences when the REC is scaled down, especially if the development is in a protected area.	
<b>4.6</b>	<b>WETLAND ASSESSMENT PRESENTATION – Mr Gary Marneweck, Wetland Consulting Services (Pty) Ltd</b>	<b>Appendix C</b>
	<p>Mr Gary Marneweck informed the stakeholders that available information has been utilised for this study and that it is :</p> <ul style="list-style-type: none"> <li>• Baseline wetland data that is available from various sources including several DWS and other wetland reports and wetland inventory databases; and</li> <li>• The Revised wetland data layer for the Mpumalanga Highveld Region.</li> </ul> <p>The limitations associated with this study were presented as being:</p> <ul style="list-style-type: none"> <li>• Inherent inaccuracies in remotely mapped wetland data;</li> <li>• Limited verified ecological categorisation information for most of the systems for which there is coverage;</li> <li>• Possible other data sources that may exist but that the study team do not know about; and</li> <li>• Limited site access i.e. not easy to undertake field verification.</li> </ul>	
	<b>Discussion</b>	
4.6(a)	<p><b>Mr Thembani Mashamba:</b> With reference to the Upper Olifants area, is it correct to assume that some of those wetlands are already disturbed due to mining activities. The question was raised whether there is a level of collaboration between the DWS and DMR in terms of DMR issuing mining right licenses and the DWS the WUL.</p> <p><b>Ms Mballi Dlamini, DWS-Mpumalanga:</b> There is limited collaboration with the DMR as most stakeholders would know it is difficult to get DMR on board on certain issues.</p> <p><b>Ms Barbara Weston:</b> From a regulatory point of view there is collaboration taking place with the compilation of an Integrated Compliance, Monitoring and Evaluation System which the DEA as the custodian.. Such a system already exists in the DWS related to Forestry. A similar process is also taking place with the Coastal Management Act. The organs of state, Nationally, Provincial and Local has realised that that is the way forward as each of them cannot deal with authorisation individually.</p>	
4.6(b)	<p><b>Ms Mballi Dlamini, DWS-Mpumalanga:</b> Another matter that needs to be sorted out within DWS is to address the time frame of WULA approvals. It is believed that the authorisation process is a frustration for water users as it takes too long. With the determination of the Reserves, it is believed that WULAs could be processed quicker.</p> <p><b>Ms Barbara Weston:</b> What is important to note is that the official who is processing the application understands what to do with the Reserve information and not using the Reserves as a tick-box exercise. It is also important that the Reserve information be taken through to the auditing process. This information is important and should be captured in the future CMA's Catchment Management Strategies (CMS).</p> <p><b>Mr Yakeen Anwaru:</b> The stakeholders were informed that this Reserve process includes an implementation plan and it was recommended that representatives from the Regional Office should attend the next key stakeholder meeting, where the licensing and implementation steps will be presented.</p>	
4.6(c)	<p><b>Mr Reginald Mabalane:</b> With reference to the Integrated Compliance and Monitoring Systems mentioned earlier, are the DWS, DMR and DEA included in the process?</p> <p><b>Ms Barbara Weston:</b> in response to the question whether the DWS, DMR and the DEA is part of the Integrated Compliance and Monitoring System, it was responded as yes. The one environmental authorisation system forms part of the Integrated Compliance and Monitoring System. The other integration process that is being looked at from a regulatory point</p>	

	of view is to see whether the conditions included in the authorisation whether it was issued by DEA, DMR or DWS are adhered to.	
4.6(d)	<p><b>Mr Reginald Mabatane:</b> It was enquired whether the Integrated Compliance and Monitoring System was complete, and if not, when it will be completed.</p> <p><b>Ms Barbara Weston:</b> The working group is working on finalising the document and the Organs of State are working towards one goal.</p>	
4.6(e)	<p><b>Mr Viktor Cogho:</b> It was asked for clarification purposes, looking at the wetland map, it seems that wetlands are only identified to the south of the catchment area and nothing to the north.</p> <p><b>Mr Gary Marnawock:</b> There are clusters of wetlands to the north of the catchment area and the stakeholders were informed that the map will be updated to indicate the clusters more clearly.</p>	
<b>5.</b>	<b>NEXT STEPS</b>	
	<p>Mr Trevor Coleman presented the next steps to be undertaken with the Reserve Study and they are:</p> <ul style="list-style-type: none"> <li>• Refinement of the EWR and flow determination at key nodes in the system;</li> <li>• Ecological consequences assessment – analysis;</li> <li>• Draft Reserve for Gazetting – envisaged consultation to take place in August 2016</li> <li>• Development of the ecological specifications and Reserve Template – September 2016;</li> <li>• Management and Implementation Plan; and</li> <li>• Gazette Reserve.</li> </ul>	
<b>6.</b>	<b>WAY FORWARD AND CLOSURE</b>	
	<p>No further matters were raised. Any comments and questions not raised, the stakeholder were informed that they have "comments cards" in their meeting pack. Access to all documents, if full details, links provided.</p> <p>Thank stakeholders for their participation and the meeting closed at 13h15.</p> <p>(Presentations are available on: <a href="https://www.dwa.gov.za/dm/currentstudies/default.aspx">https://www.dwa.gov.za/dm/currentstudies/default.aspx</a>.)</p>	

Signed:

  
 .....  
 On behalf of GAA

04-10-2016  
 .....  
 Date

  
 .....  
 On behalf of DWS

04-10-2016  
 .....  
 Date

**Appendix A**  
**Attendance Record (Alphabetical according to Surname)**

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**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

# **DETERMINATION, REVIEW AND IMPLEMENTATION OF THE RESERVE IN THE OLIFANTS/LETABA SYSTEM: WP10940**

## **(STAKEHOLDER MEETING)**

**Date: 25 & 26 May 2016**

# Content

- Water Resource Protection
- Study area
- Background to the Olifants WMA
- Purpose of this stakeholder meeting
- Way forward

# PROTECTING THE WATER RESOURCE

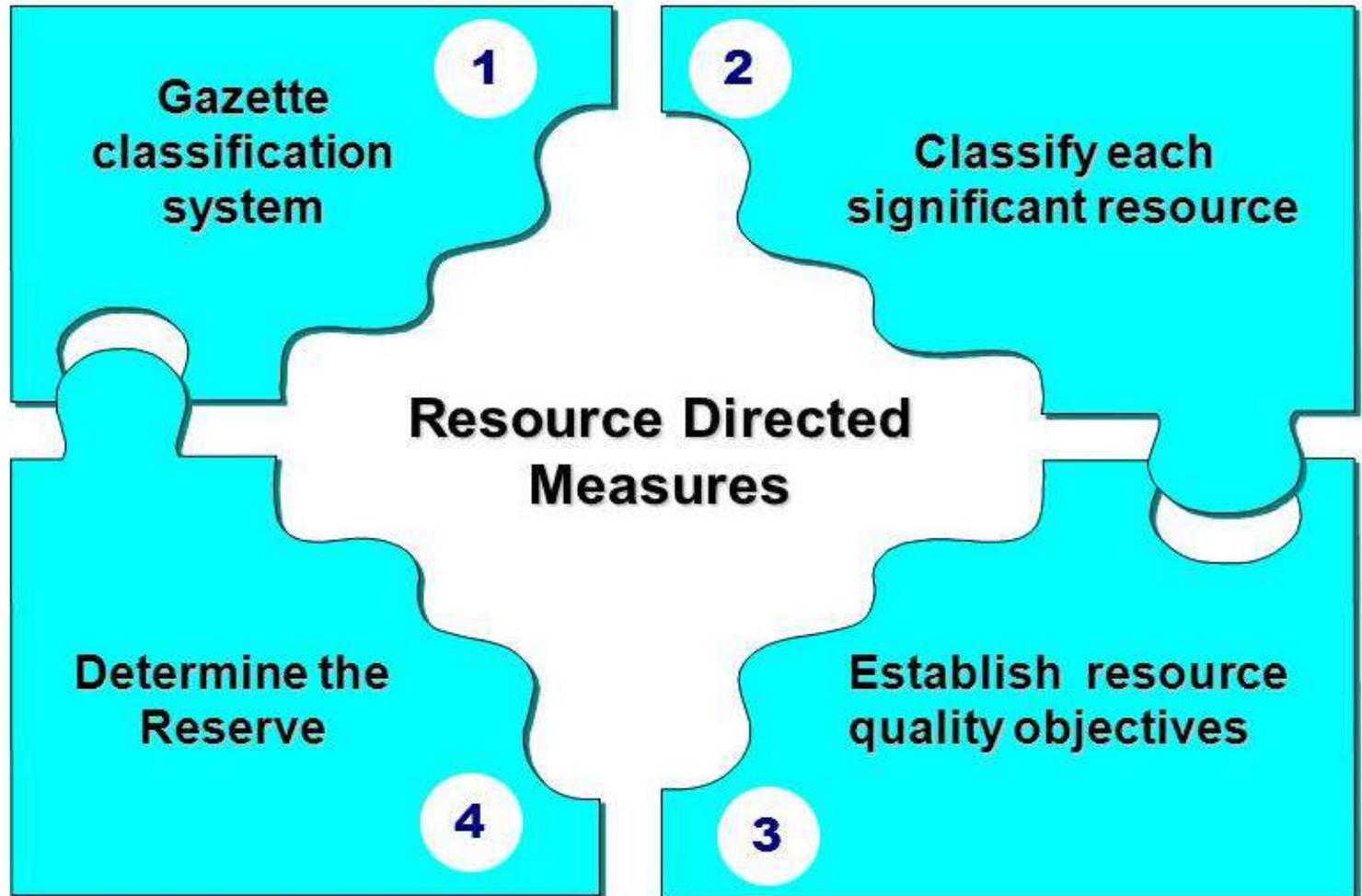
- *Water Resources* need to be managed so that they are **protected** on one hand and,
- Sustainably **utilised** on the other for social and economic development.
- **The National Water Act** is one of the Environmental Acts that provides the regulations and protection tools to achieve a balance between protecting and utilising.



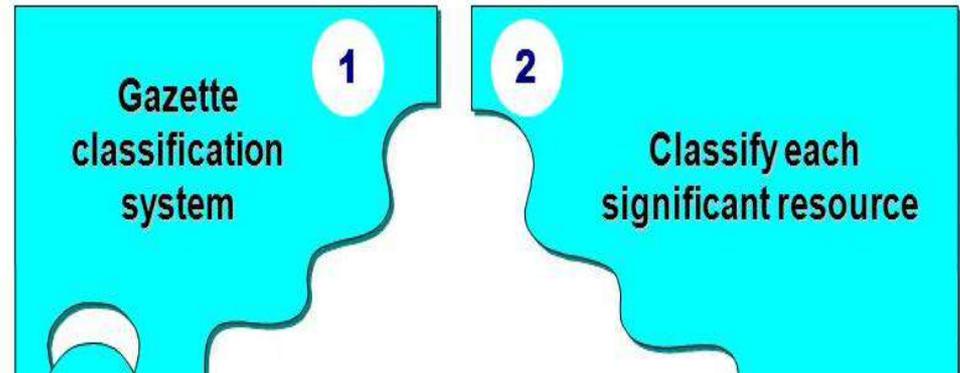
**Protect**

**Utilise**

Chapter 3 of the **National Water Act** (NWA) (Act 36 of 1998) lay down a **series of measures** which together are intended to ensure the comprehensive protection of all water resources



# CONTEXTUALIZING WATER RESOURCE PROTECTION



## Classification system and determination of water resource classes

### THREE MANAGEMENT CLASSES (MC)

Classes	Description of use	Ecological categories
<b>Class I</b>	Minimally used	A-B
<b>Class II</b>	Moderately used	C
<b>Class III</b>	Heavily used	D & lower

# CONTEXTUALIZING WATER RESOURCE PROTECTION

## Each class represents:

- a different **level of protection** that is required for the water resource, and
- **the extent to which the water can be used.**

## Classification is used in two ways:

- To define the **present status** of the water resource
- To define the state towards which the water resource needs **to be managed** sustainably (**future state**).

## Determining Resource Quality Objectives

Establish resource quality objectives

3

These objectives provide statements about:

- what the **quantity** of the water should be (water level, pattern, timing)
- what the water **quality** should be (physical, chemical and biological characteristics)
- what the **condition** of the **instream and riparian** (river bank) habitat should be
- what the **condition** of the **aquatic** (water) animal and plant life should be.

# CONTEXTUALIZING WATER RESOURCE PROTECTION

## Determining the Reserve



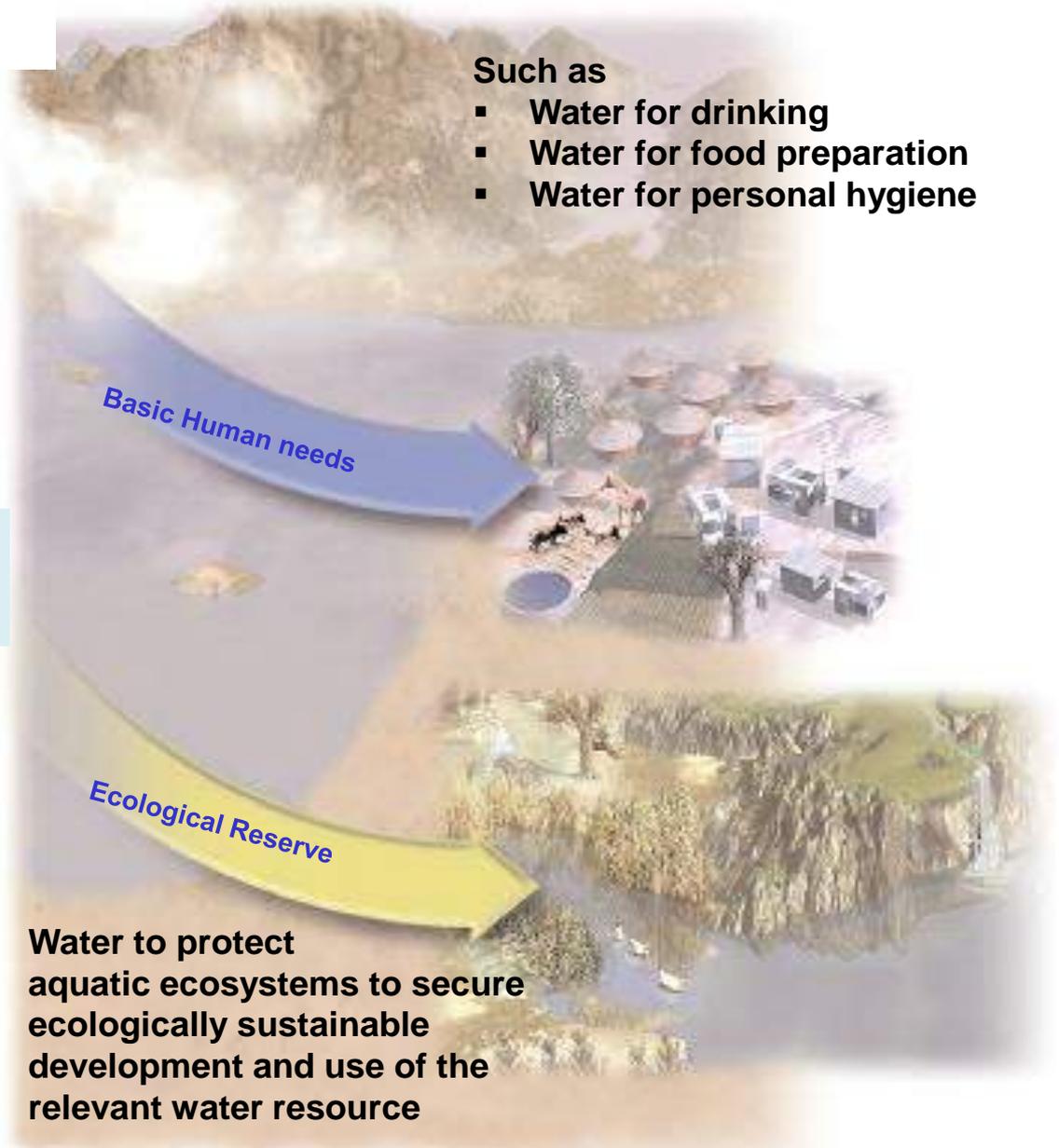
- The Reserve refers to both the quantity and quality of the water required to:
  - satisfy basic human needs, and
  - protect water ecosystems.
- It has priority over all other water use. Water required for the Reserve must be met before water resources can be allocated to other water user.

# THE RESERVE

## WATER RESOURCES IN A CATCHMENT

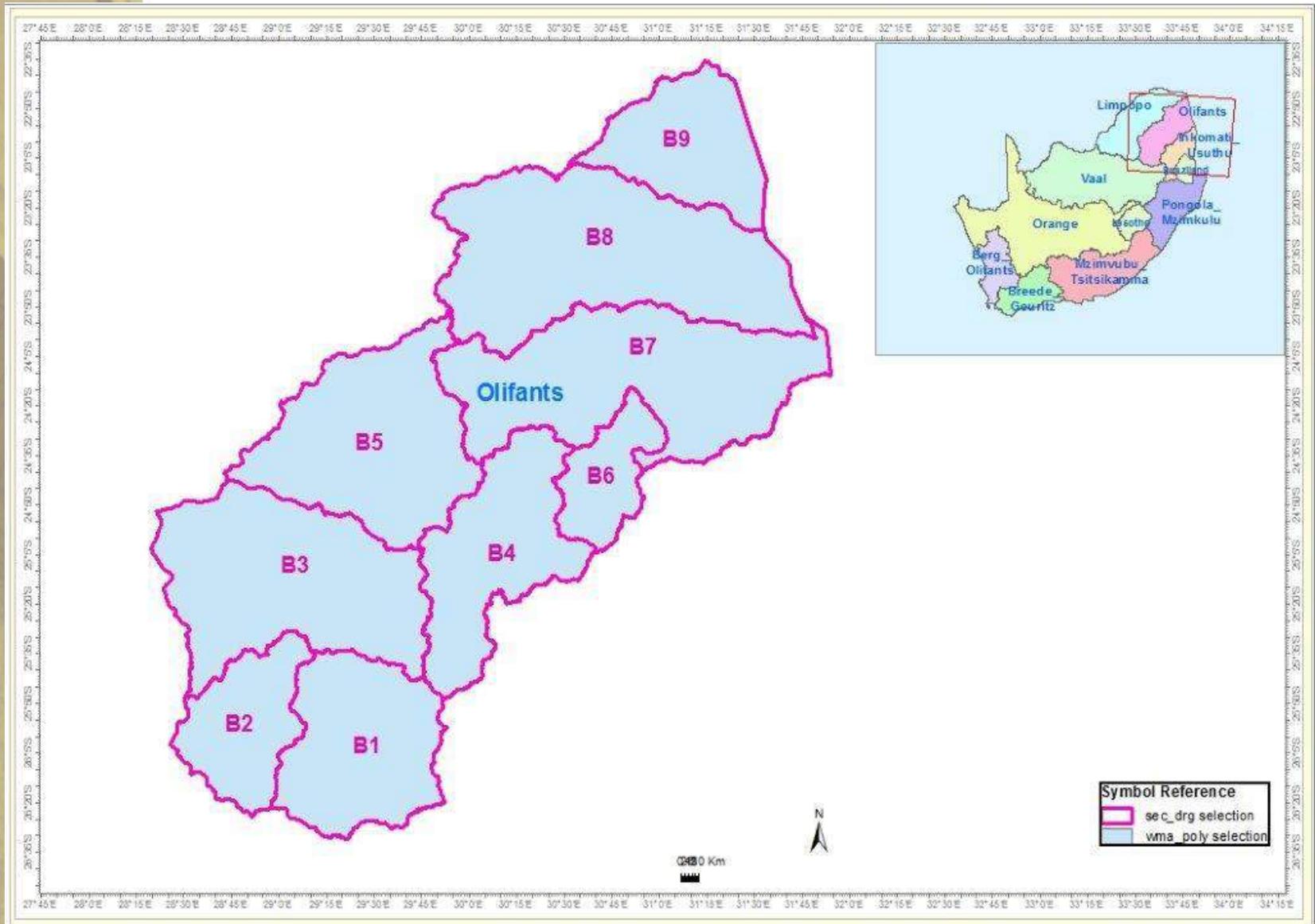
Such as

- Water for drinking
- Water for food preparation
- Water for personal hygiene



Water to protect aquatic ecosystems to secure ecologically sustainable development and use of the relevant water resource

# Study area

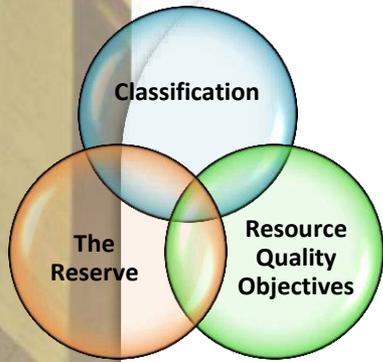


Map showing secondary drainage regions

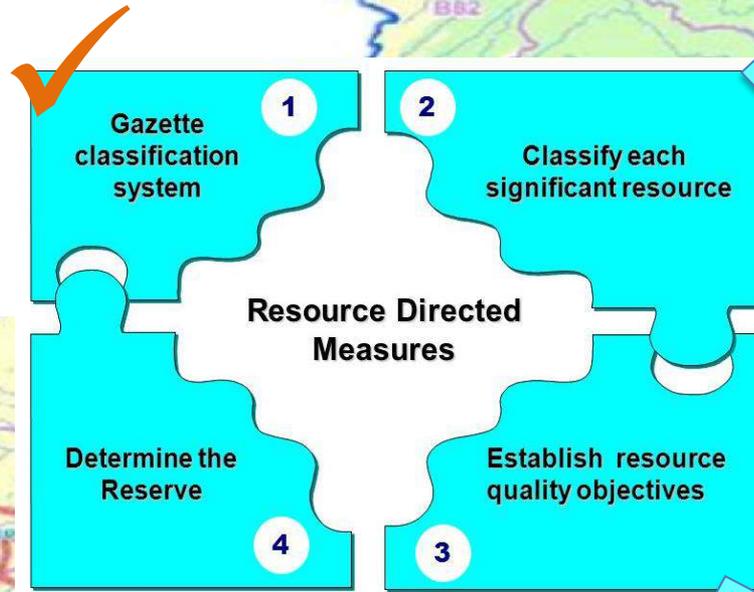
# The study area sub-catchment

- The study will cover the Olifants WMA and the area includes;
  - The Olifants catchment - B11, B12, B20, B31, B32, B41, B42, B51, B52, B60, B71, B72 and B73,
  - The Letaba Catchment - B81, B82 and B83, and
  - B90, the Shingwedzi catchment.

# BACKGROUND TO THE OLIFANTS WMA



**September  
2010**



**Classification:**  
Olifants 2013  
Letaba 2014

**Preliminary Reserves:**

Olifants: 2001 and review of PES 2009

Letaba: 2006

**RQOs:**

Olifants – Final Gazetted April 2016

Letaba – Draft Gazetted 22 March 2016

# Determination of the Reserve in the Olifants WMA

- The study was initiated in July 2015
- Timeframe: 18 months.
- Golder Associates Africa (Pty) Ltd was appointed to assist DWS.
- First Reserve to be gazetted and this will exclude the Shingwedzi Catchment.



# **STAKEHOLDER ENGAGEMENT**

# PURPOSE OF THE STAKEHOLDER ENGAGEMENT

- To engage with stakeholders on the determination and gazetting of the Reserve.
- To involve stakeholder engagement as wide as possible.
- To establish partnership in the management of water resources in the Olifants WMA.
- To enable the Department and stakeholders to share knowledge and expertise.
- To share the department vision and mandate with its stakeholders.
- To obtain valuable knowledge, inputs, insights and recommendations that will assist with the future protection and management of the Olifants WMA

# TARGETED STAKEHOLDERS

- NGOs – Olifants River Forum, Federation of Sustainable Environment
- Regulators – DDET (Mpumalanga and Limpopo), DWS (regional and national), DMR, Department of Agriculture
- Water boards and WUA – Lepelle WB, Lebalelo WUA  
Agriculture – Agri SA, NAFU, Irrigation boards, Tvl Agric Union of SA
- NGOs – Federation of Sustainable Environment, Water Service Authorities/Providers, BCT Water, etc
- Emerging Farmers
- Mining – COM and mining houses
- Industries – Eskom, SAPPI, TSB Sugar, etc
- Local government – local and district municipalities in WMA

## TARGETED STAKEHOLDERS [Cont.]

- Conservation – SANBI, Sanparks, WESSA, Bird Life Africa
- Information/Academic institutions – (i.e. schools, universities)
- Unions & House of Traditional leaders
- Catchment Forums & WUA
- Civil society and the environment representatives
- Community members (public at large)

(did we leave someone out?)

## COMMUNICATION METHODS/ APPROACH

- Direct – Stakeholder meetings
  - Distribution of documents and presentations for comments; and
  - Compilation of comments and response register.
- Printed Documents – BID, Newsletters & Brochures.
- Electronic media – DWA website:

<https://www.dwa.gov.za/rdm/currentstudies/default.aspx>

E-mail (database list)

# WAY FOWARD

The output of the study will be used for:

- The preparation of the legal templates for the Reserves to be gazetted;
- Preparation of technical documents that will support the gazetted values;
- Development of monitoring programs that will identify the indicators that need to be monitored;
- Development of a Reserve Implementation Plan;
- Provide essential information in the operating rules for infrastructure and the assessment of WULA; and
- Regulatory tool for compliance, monitoring, evaluation and enforcement

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