



**Free State NGS Workshop- comments**

Theme/Chapter	Comments	Sector
<p><b>Chapter 1, 2 and 7</b></p>	<p>Governance is required in terms of groundwater conditions for use as required for restrictions and drought. Proper coordination such as a trust is needed to close the gap in the implementation of licence and registration conditions.</p>	<p>DWS</p>
	<p>Reserve determination is not mentioned in the NGS draft and it needs to be reviewed urgently.</p>	<p>Academia, UFS</p>
	<p>DWS should assist local municipalities in terms of setting and implementing by-laws.</p>	<p>Local government</p>
	<p>Communication between sectors should be improved; powers and functions should be put in local level to ensure implementation.</p>	<p>Local government</p>
	<p>There should be delegations of power and functions, regulations should be in place, more awareness raising, education and implementation. Authorization process needs improvement.</p>	<p>Irrigation (WUA)</p>
	<p>Most projects are given to engineers without groundwater background or advice. Qualified hydrologists should be a prerequisite for any groundwater tender undertaken by DWS and this includes WULAs.</p>	<p>Academia</p>
	<p>DWS should implement the NWA 1998; the Act needs to be accompanied by clear guidelines and standards regarding groundwater. DWS is the custodian of groundwater it therefore needs to take full responsibility and not shift responsibilities to other sectors.  In terms of education and awareness raising, groundwater capacity needs to be developed in CMA, Water boards and in municipalities. A strong groundwater unit is needed within the Department</p>	<p>Consultant</p>

	(DWS).	
	The NGS should address introduction of groundwater related topics in the education system.	Water board
	All groundwater stakeholders should form part of a groundwater trust and engage in a groundwater code of practice to ensure that the strategy is implementable and implemented through proper coordination, management and ensuring regulation of resources and users.	DWS
	The NGS should have specific groundwater financial regulations in place.	
	Identified non compliances need to be handled and processed through a judicial system. No adherence to rules needs to be dealt with appropriate fines.	Academia, UFS
	There inter-relationship between groundwater sectors and the DWS needs to be improved. Groundwater maps need to be reviewed.	Local Government
	Groundwater units (DWS) in regions need to be properly aligned with the groundwater units in the national office. NGS should also address the issue of AMD.	DWS
	Education for both local municipalities and farmers is needed followed by awareness raising in communities. All stakeholders should be exposed to implementation of plans of action and feedback should be made available. Groundwater Trust should be a local idea and the trust for each district should be working together to develop new boreholes and improving existing ones.	Local government
	In terms of critical deliverables, the strategy should address watch dogs and implementation of aquifer management	
	There should be annual workshops to monitor all groundwater stakeholders; proper training is highly needed at a local level.	Local government
	The NGS should address how much is the yield if one dollar is invested in groundwater so that investments of finances can be redirected to groundwater.	
	NGS as well as regulations should address the issue of selling of	Local government

	water in private land by owners.	
	The NGS should address how groundwater can be used as a source of income for municipalities considering that most communities claim to utilize their own resources to drill and operate boreholes.	Local government
	Sustained groundwater engagement can be achieved through forums and awareness campaigns.	Dept. of Agriculture
	Information sharing on operation of boreholes is needed within stakeholders. Funding of awareness programmes should be at local level and the war against groundwater theft should be established and it should include all different sectors.	SALGA
	There should be an improved relationship between the DWS and local municipalities.	Local government
	The NGS should address the issue of groundwater use without authorization, the issue of drilling new boreholes instead of cleaning and maintaining the existing ones. Financial decision makers should be knowledgeable about groundwater sources.	Agriculture
	In terms of training objectives, there should be knowledge enhancement and understanding of requirements needed for effective operations and maintenance of boreholes. The NGS should address the fact failure of most groundwater supply schemes in the country is mainly associated with poor monitoring of groundwater resources and poor maintenance of groundwater infrastructure.	Local government
	Funds are available but municipalities need to be supported and guided by DWS and other sectors in terms of sector plans. Recommendations need to be made to regulations where there seem to be a regression by users.	COGTA
<b>Chapter 3,4,5,6 and 8</b>	The NGS needs to assist in regulating the domestic sector in terms of use and enforcement since it is not possible to limit domestic water supply	DWS
	Drilling of boreholes should be regulated.	
	There is a need for inter departmental partnership between DWS and Department of Education so that groundwater can be	

	introduced at a basic educational level.	
	Drilling contractors should be regulated and compliance conditions should be enforced.	Irrigation (WUA)
	In terms of groundwater resource protection, groundwater vulnerability maps need to be localized and developed into CMAs.  Vulnerability of groundwater resources should be done as well as risk assessment in mining areas, industrial areas and areas of high vulnerability or risk should be prioritized for protection.	Researcher/Academia UFS
	The DWS should be able to monitor and enforce compliance concerning groundwater management. There should be groundwater application and registration fees for revenue.	
	Water managers should be educated about groundwater and NGS should prioritize critical groundwater related issues. Efficient authorization is critical and proper professional accreditation of hydrogeologists is very important.  There is a need to restructure DWS hydrogeological skills to be centralized however groundwater knowledge is also needed in institutions/ water organizations.  Resource directed measures need a complete review in relation to their effectiveness. Practicality and implementation of groundwater standards and guidelines are required.	Consultant
	There should be an establishment or development of an institution that will look at putting corrective groundwater measures.	
	The groundwater allocation and authorization system should be evaluated on the basis of its application, use, efficiency; and it needs to be assessed if it is good enough.	

<b>Chapter 3,4 5, 6 and 8</b>	<p>The NGS should address ways on how to prevent drilling of boreholes as people please especially during the drought period.</p> <p>There should be training of existing staff in all sectors and involve higher education.</p>	Local government
	Capacity building should start at the top level, at the decision makers so that they can provide excellent strategic decisions about groundwater usage, drilling of boreholes as well as licensing.	
	<p>DWS should involve Water Service Authority before registration and before issuing any licence.</p> <p>Penalties should be imposed to users that pollute groundwater resources.</p> <p>There should be a regulatory body for borehole drilling.</p> <p>The institute of higher education should align the curriculum to accommodate groundwater management.</p>	FS-COGTA
	There should be a follow up on licences issued to check if the used is the one which the licence was issued for.	Agriculture
	<p>Groundwater professionals are important but training of employed workers is also crucial.</p> <p>The NGS should address that groundwater needs to be maintained even when there is sufficient surface water.</p>	Local government
	Registration of boreholes needs to be controlled by DWS, Self-regulation of groundwater should also be prioritized, groundwater classification licensing is needed and monitoring of groundwater will ensure groundwater protection and management.	DWS
	<b>Chapter 9, 10 and 11</b>	<p>There should be development of by-laws that will incorporate groundwater management.</p> <p>Introduction of Groundwater Management System is vital; WSA should be involved on awareness raising to private companies to register boreholes and comply with licence conditions.</p> <p>Water sector forums should be developed on district or provincial level.</p>
National level should work together with local level to ensure capacity building in all levels.		Local government

	Development of information monitoring system as well as reviewing the existing groundwater monitoring system is crucial.	
	In terms of Capacity building, the interns that are trained should be absorbed to keep the skills.	
	An improved stakeholder communication is very important with the entry point being the district municipality in local government.	Local government
	Capacitate districts through hiring of hydrogeologists who will overlook the whole district's groundwater requirements.	
	Local government should be assisted by groundwater sectors in terms clear groundwater related guidelines and descriptions.	
<b>Theme 12 (Local action)</b>	There should be a set of groundwater indicators in all groundwater sectors to monitor the status of groundwater and this should be part of the National sector performance monitoring or annual reporting.	
	COGTA should work together with the DWS to raise groundwater awareness and educate councilors about groundwater in order to prevent developments such as pit latrines on aquifers.	Local government
	One of the deliverables should be establishment of a monitoring database by the end of 2017 with yields and and abstractions of operating boreholes including those used by farmers. This will assist in monitoring the strategy.	Agriculture
	There should be an accessible knowledge base information on groundwater	Local government
	The strategy through the Department of Agriculture should enforce compliance of farmers. The Department of Agriculture should also assist in verifying the boreholes that are used by farmers and how much they use.	Agriculture
	The districts should monitor implementation with support from the DWS regions.	Local government`
	Training and by-laws that incorporate groundwater are needed to guide local municipalities.	
	All stakeholders from different sectors should have input in	

	<p>setting by-laws and helping local municipalities with implementation.</p> <p>There should be country-wide mapping and registration of all groundwater sources.</p>	Local government
	<p>The NGS should address that groundwater needs to be nurtured and treated like any other water resource, it should be used sustainably and not as an emergency measure during drought seasons.</p>	
	<p>The NGS should address that groundwater should not only be considered during drought; artificial recharge should be promoted.</p>	Agriculture
	<p>The NGS should be aligned with the long term plan of the country.</p> <p>The districts should be assisted by DWS in terms of coordination of Water Sector Forums.</p> <p>Rollout and monitoring of the strategy should be through workshops.</p>	FS-COGTA
	<p>With regards to local action, awareness campaigns like those of water leaks should be enforced for groundwater promotion and use.</p>	Local government
	<p>Although DWS is the chief owner of the strategy, sectors should have their own champions regarding groundwater.</p> <p>There should be a legislation that will empower local authorities.</p> <p>Critical deliverables should be indicators for proper management of groundwater by municipalities.</p>	