



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



Mpumalanga National Groundwater Strategy Workshop-comments

The me/ Chapter	Comments	Sector
Chapter 1, 2 & 7	The aquifer levels to be known before any money can be spent on any ground water. Accurate and precise by laws developed for underground water abstraction	Nkangala District
	Why do we get sufficient groundwater in one place and not in another?	
1	In terms of stakeholder engagements, I suggest the department gets advisors from various industries that would form part of the NGS team (e.g. chamber of mines representative, from Agriculture etc). This ensures that there is representation in the working committee.	Mining (coal)
	For users who are pollutes, Department needs to focus more on compensation and using those charges to either put in a fund, or assist in pollution treatment. A big issue is to monitor unregistered groundwater use, e.g. more so in Agriculture.	
7	What happens to all the water charges imposed on users? Can't that be used to fund maybe partially the NG portfolio?	
	Biggest/ most important aspect is National buy in. They need to take these issues seriously and stop being responsive all the time.	
	Areas without water (rural areas), this have a negative effect on the communities around and Later when boreholes are drill the water quality is poor and cannot be used for human consumption. The controls of water tanker to be closely monitored as one do not always know where the water is collected from. These situations give health a challenge with water related outbreak	Health Department Provincial Mpumalanga
1	A suggestion/proposal: to manage groundwater and surface water in an integrated manner. Perhaps through CMA's/ WUA's. Why not an industry to upload groundwater information on a national database. There is a significant amount of information collected by industry on a daily basis (quality, quantities, and models). This information can significantly enhance current databases.	Mining Sector
	Develop a database for groundwater in rural municipalities. High degree of participating management	
	Groundwater verification where it is used for irrigation and municipal use, it should be verified under current V&V efforts. Too many users over abstract their boreholes. Everyone should be obliged to have borehole tested for safe yield and adhere to the outcome. CMA's should be obliged to have groundwater division to assist with IWRM in	IUCMA

		the WMA.	
	3	Borehole use very difficult to monitor. Currently, 100s of hectares of macadamias are being planted, boreholes drilled, and then WUL application made. Licence should be issued before planting and drilling.	White River Irrigation Boards
	1	Improve on the understanding of aquifer system at local scale, which will be informed by national policies and regulation. Capacity buildings: what you can't see, you cannot believe. There is a need to educate, share skills, explore and continuous monitoring. However, this will require funds that may not be available.	Parastatal
	3	Drillers need to be regulated to ensure that all necessary data is collected during drilling (borehole logging). Timber plantations are regulated in terms of distance away from the river, they can be planted. However, GW is not considered. During rainy seasons it might not be a problem but during drought these plant deplete groundwater.	
	2	How is the department planning to close the gap on knowledge sharing in regard to groundwater prioritisation since is it lacking.	Local Municipality
	3	Are there limitations to drilling boreholes near public major and minor streams (rivers)? What is current process to obtain a licence to utilize groundwater for commercial or private use?	Irrigation Boards (IUCMA area)
	1	Driver at regional level: CMA's delegate responsibilities to ground level institutions, i.e. WUA's/IRR Boards/Municipalities/NGO's etc. (Integrated Management)	
	3	Drillers registered- must have documentation from client before drilling. Development of Policy/strategy/management parallel with updated database of what is already being utilized. How is it possible that mining is allowed in sensitive areas, wetlands etc. How will this policy assist to not allow this?	
	1	Include in Catchment Management Strategies. Local participative Management Institutions, i.e. WUA's. All stakeholders involved in collaboration with CMA's. Incorporate into regional/local level.	
	1	CMA: CMF have to be the driver at local level. Need to be an integrated process (strategy) with other water (surface). In case where irrigation boards or water user's forums are absent, users need to create the structures. On their side this forums are part of the CMA.	Mpumalanga Agriculture Provincial Affiliate- AgriSA
	2	DWS do not have capacity to police the use of water. Water Users Associations do have the ways to do policing (monitoring) by their members. Use the effective irrigations boards and or water Users Associations in various parts of the country as example to manage groundwater use at same way. Publish a document with accurate information on the effect of mining activities on groundwater sources	
		Current start groundwater usage and availability. Can groundwater sustainable the current water demand. Can groundwater sustainable the current water demand? Bring information to provincial and local level. Capacitating local municipality will it be in terms of finance, skills etc. How long will it take to update the available information? GW table per province.	

	3	Water licences strict enforcement for industrial users. Norms, standards and regulation for drillers of boreholes whether for or gas or mineral exploration	Mining Sector (Exploration)
	2	We have good systems in place, it needs to be managed and updated. (National Groundwater Archive). Registering GW sources is extremely tedious- this is very discouraging. Appoint competent people to collect and manage available data.	Groundwater consultants
	3	Where there are villages very VIP toilets, disinfection station should be compulsory with every borehole drilled within the area.	Local municipality
	2	National database should consider (local) aquifer level. Align this strategy with RDM GW data.	Mining
	?	Linkage between surface and groundwater monitoring	
	1	GW database need to be updated. All boreholes need to be reported as data available- CMA, consultation and DWS. Municipality should not give geohydrological work to contractors boreholes do not get logs and data because are not captured. Training to all departments working with water at all levels. Municipality data should be available and other departments. CMA should be appointed to drive collection and management in co-opposition with departments, municipality, mining, forestry and private	Groundwater consultant: In-situ consulting
		What is the strategy of DWS to respond the plantations (eucalyptus) using much water (25 litres) of a da? How is the department going to regulate and control the water over-usage of industrial timber plantations (ITP's) from using more water during drought or water challenges times?	Mpumalanga Water ESO Environment
		Worried about the water use by plantations in the bushbuckridge- Mariepskop/Moholoholo- It is understood and checked that a gum tree's roots go down to more than some trees to drain water per day- What and how do we regulate this to improve our ground water level? What policy is there to control this? We are worried by this as this impact on our water supply towards the downstream flow. What are the department done to check on the natural spring water resources which are there in our communities which have been providing-water over a long period of time and still provide water? How many such springs are we having? We know few such in our villages but our municipalities do nothing about this God has provided and protect such resources, and appreciate what we have	Mpumalanga Water (MWC)
	1	Real and sustained stakeholder engagement can take place through stakeholder consultation meetings and forum meetings. Feedback to stakeholders would be key factor for engagement to be sustainable. I see my sector owning, implementing achieving the strategic objectives. Actions through continuous involvement from the initial phase of a strategy development, implementation as we'll be sharing a common vision with the DWS then will be able to achieve the strategy objectives when our roles and responsibilities are CMAs clearly defined. Finances could be directed provincially through towards increasing GW	

		priorities. Capacity building within the CMAs.	
4, 6, 8 & 9	8	Pressure to be exerted to specialist like geohydrological engineers to have much developed instruments and methods for siting prior to drilling in order to ascertain the water availability, quality and standard.	Nkangala District
	4	Shouldn't underground water be preserved, instead of using it for irrigation?	
	4	The groundwater should be managed in a manner of protecting it in terms of pollution like: pit latrine, animal kraal and graves in the villages. The municipalities must form committee's of water and workshop and villagers in term of water of water protocol. The huge gap between government and villagers is lack of interaction. Politicians and officers in authority undermine officials with knowledge.	BLM
	8	Good planning sessions	
	9	GW data is scatter all over the place. Certain consultants are not prepared make this available. The data is priceless Why not pay them for it? Other than schedule 1 use, everyone should be submitting groundwater consumption on monthly or annual basis. Maybe water levels too?	IUCMA
	9	Skill to be transferred from National to local. Information management should be improved and shared with public i.e. information dissemination.	
	9	What information does the DWS have regulating the recharging of aquifers? Impact on existing groundwater users (often domestic) by new groundwater use. How will this be handled? Schedule 1 use, GW used in extreme drought conditions should be controlled	White River Irrigation Boards
	9	Willingness to share information especially the private owned. How will the department ensure that users share this information some farmers have unregistered boreholes, how do we ensure those are accounted for verification information management, protection purposes. Cone of depression and its impact to your neighbouring users, and it impacts an availability	Parastatal
	9	Make use of satellite pictures to pick up production of crops and or trees. Verify this information with database. Verify the use of water by feedlots, ablations etc. with database on boreholes. Publish a document with accurate information on the real effect of prospecting as well as mining activities on the sustainability of GW resources. This suggestion is to help prevent wrong perceptions. The information of the usage of GW can only be of some value (great value) if the information is accurate and complete.	Mpumalanga Agriculture-AgriSA

	9	Capacity building without the communities is very essential people must understand the problems we facing as a country and globally. Involve youth in the awareness and capacity building.	EMG-MPWC
	4	Conduct more awareness on groundwater issues at community level- community based workers. Hire water scorpions that will monitor at local levels and al project. Monitoring and evaluation of users and licences. Constantly done. Complaint referred and feedback channels.	Health department
	4	Regulation is needed to have industries that are more densely or closely located to each other and impacting the same aquifer to do comprehensive modelling together to determine the actual sources of pollution that are affecting the aquifer and have the responsible industry take action to remediate as needed. Otherwise there is just blame shifting from one to the other and no real result can come from it.	Industrial
	9	How can one change the mind-set of people to know that GW is clean and health or usable? How is awareness going to be raised in rural area especially to people who are illiterate (uneducated).	
	8	DWS- National has to train not only academics but also technicians, deploy graduates to municipalities. Need to integrated with the resource classification process- nationwide scale they are already incorporating GW into the process	SANParks
		Qualification of the GW resource is important. Public participation of rural communities is critical and they affected by shortage of water in their communities	Mining (exploration drilling)
	6	Authorisation and use regulation. Yes industry needs regulation, self and legislated. Stewardship should be promoted. Protection developing function to CMAs Clarify functions, role and responsibilities to local authorities.	CMA
	9	It is important to build awareness within the municipalities and other sector departments. The issue of groundwater information corporation from municipal officials.	DWS
	9	GW quality and quantity data base, from the mining sector, agriculture priority in the national groundwater strategy as it is important to have this information. Accessibility of the information from these sectors need to be stressed somehow as it is not easy to get it.	
	9	Municipalities should be the drivers to close the gap as they are local government. Assist in strategic plans: They are closer to people on the lower level. They must share knowledge and coordinate.	TWK-AGRI (pty) utd (timber)

9	GW information management database- GW for the private sector and government sector to upload monitoring results with regards to the water use licences.	Environmental Consulting mainly mining and construction
8	Water availability is determined by rainfall Development in any area should be limited by available water. Government should develop water infrastructure to optimally utilize rainfall. In that way pressure on groundwater will be minimised.	Mpumalanga Agriculture
4	Community Participation- involvement of communities at local level, Groundwater - awareness campaigns, skills and knowledge- groundwater importance, management of groundwater. Thus, sustainability and effective groundwater management.	DWS
6	Institutions, use what is already there, regional to ground level a) CMA's b) WUA's c) Municipalities etc. Integrated Management	Agriculture-irrigated
9	DWS should ensure that groundwater information is updated on a regular basis.	Mining: Zaaiman Exploration Drilling Charks
?	GW is complete and there are many studies to understand the constraints of each site. However people and the government are not willing to pay for these studies. It is not seen as important. Groundwater source evaluation- testing of boreholes should be seen as a necessity. This is the starting point of the mismanagement. After being evaluated the source should be monitored.	GW consultants
?	Social learning team	Mpumalanga Water Caucus
9	GW data generated by the sector, how we can incorporate it into the DWS Geo data base.	

	4	The DWS should provide training/ course on GW protection and management, to delegates from municipality and private companies.	Local Municipality
	9	Monitoring of GW quality seems to be a challenge and i think managing what we don't measure or monitor is a little bit of a challenge. GW can have very good quality and can also have very poor quality for domestic usage. Looking at usage of mix of surface and GW, I think strategy looking at using GW with different qualities for different purposes.	
	4	Protection of widely dismbuted groundwater resources is a challenge. The presence of mining activities and poor sanitation in rural areas affects the quality. Strong control measures & enforcement needs to be done.	Municipality
	4	Level 1 borehole users need to sign a contract with municipality- rules and regulations of use of groundwater, legally bound to use effectively and efficiently, need to report any extreme changes to their borehole need to make water available publically in extreme need case. Municipality needs to appoint monitors. There are instruments available that can do live time monitoring placed strategically can be pre-venture instead reactive. Cut down on man poorer needed lots of parameter can be monitored at once. Depth, pH, EC, Nitrates, Salts etc.	PVT
	8	Municipalities must be educated on why groundwater schemes have failed in the past. They should know that basic, but solid planning for effective maintenance is critical and that groundwater can be relied on in well sited and designed schemes instead of random drilling of boreholes within villages.	
	?	Regulatory oversight on schedule 1 users' needs to be addressed. Schedule 1 uses can't proceed without drilling and regulation can perhaps focus on the drilling contractors. If a regulatory process can create a system where no borehole is drilled without being registered, it means all borehole will be registered which will allow the department to regulate it. For this to happen the database system is critical and the department must create a public database register and capture data.	Mining
5, 10 & 11	5	Monitoring of species that are using more GW. Work towards reducing those species.	TWL Agri
	5	Rainwater retention	Mpumalanga

	<p>Organic material in soil.</p> <p>Crops, plants and trees.</p> <p>Earth dams.</p> <p>Soil conservation structures.</p>	Agriculture
	<p>Educating of the public is important on the aquifers and how they can participate on the management of groundwater resources.</p> <p>Include the public/ communities in the overall strategy.</p> <p>Drilling companies to use non-poison drilling chemicals in their process.</p>	Mining Sector
	<p>Roll out the strategy but establish district forum that will be led by DWS national.</p> <p>In a similar workshop or make use of the existing forums to engage all relevant stakeholder.</p> <p>Be the leading sector and put for effort and emphasis</p>	
	<p>Contamination of GW by mining activities is a great concern.</p> <p>Regulations that are practical to prevent damage of ground water resources have to be put in place.</p> <p>Our organisation can assist with communication to commercial foremen in rolling out the strategy.</p>	AgriSA
	<p>IWRM at local level should include GW management. CMA's are in a better position to play this role with other local water management institution such as irrigation boards and water user associations.</p> <p>Again water stewardship should play a control role involving all role players.</p> <p>Catchment management strategies should include GW management and authorisation.</p> <p>Transboundary information sharing into regard to GW management.</p>	
	<p>To roll out the strategy to municipalities, use stakeholders such as cogta, salga, district in order to involve also the political wing which is the decision maker for municipality.</p> <p>Propose also GW forums to be formed.</p>	Municipality
	<p>Social learning team (local action)</p>	Mpumalanaga Water Caucus (MWC)

5	<p>If the updating of GW databases can be implemented consultants can supply information.</p> <p>Consultants can assist in training of students. For this to work communication will be key.</p> <p>The government should ensure that our current water sources are being protected. You often see broken municipal water pipes, and they take weeks to fix the problem.</p> <p>It doesn't help we manage and protect sources, but the means being used to get the water to the people is faulty.</p>	Groundwater Consultant
11	<p>Adhere to the standards DWS and SANWAS.</p> <p>Implement the standards.</p> <p>CMA to implement local practice and management plans DWS oversees.</p> <p>Water use licences to be reviewed.</p>	GW consultant
?	<p>The issue of equity (power imbalance) between different departments needs to be addressed as if then affect private sectors as well.</p> <p>Awareness should be done for the public with regards to the issue of GW policies and Regulation and also water act.</p> <p>Monitoring strategy should also be included in the (strategy plan).</p>	Water Sector Award
?	<p>Transparency is key and cooperation in good faith.</p> <p>Target heads of institutions for farmers- irrigation boards.</p> <p>The final document can be workshoped and each institution to implement i their operations, however, ensure continued support is available from the department.</p>	Parastatal
	How is the investment in terms of GW?	
5	<p>Avail any work done an aquifer in the regions in terms of quality and quantity of work done.</p> <p>DWS to continue engaging with stakeholders on groundwater development regarding the strategy.</p> <p>More awareness campaigns to be conducted.</p> <p>Have the strategy being coasted by all stakeholders who will ensure compliance with the implementation of the strategy.</p> <p>Who will manage the GW trust? Are there systems or strategies in place?</p>	

	<p>Groundwater needs to receive more attention as surface water.</p> <p>Bring on the relevant stakeholders from different sectors.</p> <p>In the future it's feasible; More research needs to go into it.</p> <p>As the local government sector we need to make ordinary citizens more aware on the importance of protecting our underground minerals.</p>	Local government sector
	<p>In terms of GW management on a local level: mines/industries often do not have clear pictures of this cumulative impact of various users on a GW resource. As a result industries often manage their impact on a resource on an individualistic basis. It will be very beneficial if GW management framework on a local level gives a platform for sharing/ assessing cumulative impacts.</p>	Mining
	<p>The issues of plantations?</p> <p>We need to regulate the establishment with a more serious approach, what is happening.</p> <p>When is the government going to implement the Low veld Exit Strategy of 2000-001 decision?</p>	Civil society organisation
	<p>11 Education can play a major role in GW management. High school and tertiary student should educate on GW management as they will utilize the knowledge acquired from the trainings on to ranging the GW well i.e. in quality and to avoid pollution of wetlands.</p>	Local Municipality
12	<p>GW standard must be update since the level of pollution is increasing.</p> <p>How to go about a contaminated GW sources especially that are used by community.</p> <p>GW protection must be educated from lower levels in schools.</p>	Dept of Health
	<p>Willingness to share already available information. For management we need to ensure data availability. Importantly is to get buy-in from irrigators as they are the major user.</p> <p>Ensure that personnel willing to share the information are not personalised.</p> <p>Meeting, Workshops.</p> <p>It is difficult to enter the government system as a scientist these days, so not all talent is tapped.</p> <p>They are always hiring PSP to run their project and staff end up of touch.</p> <p>Yes they can be hired for projects with clear instruction to teach/skill, personnel also training can be arranged to get a number of personnel to go to private sector for</p>	Parastatal

	specific time to learn.	
	Encourage the revival of IKS in water management and conservation. Indigenous knowledge and consulting with the elderly is key to improving the situation on GW.	EMG-MPWC
	Rainwater retention Private sector- roof runoff. Government- Dam infrastructure.	Mpumalanga Agriculturre
	Are institutions incorporated GW in their conservation/ environment studies? How are communities going to be capacited about GW management and usage? Are they aware of the inventories with area? Will they be given ownership of the GW?	
	Institutions: how one should link with these universities? Which universities? Their contacts please? (radiameess@gmail.com) We are there and ready to be capacitated, made use of us while we are still here, We need skills and capacity. NGS is a real challenge to all of us more especially to our communities. Teach them how to fish and show them where the river is for fishing.	Mpumalanga Water Caucus
	Strengthening relationship with international partnership e.g. Swaziland can be a challenge in term of GW. But it's easy with surface/river water due to the INCO agreements. GW is usually confined within four spaces and not shared with international countries. Capacity, building and skills development and transfer is key also.	Municipality
	GW is misunderstood an inappropriately used or managed in domestic use rural areas as well as in mining industry and agriculture. The department must ensure that they have sufficient capacity to enforce WUL conditions and impose restrictions where necessary. Introduction of professional expertise is being undermined from local management.	
	They should be monitoring of usage of all guidelines developed by DWS. Information should be at a level where an ordinary South African can understood Strengthen awareness campaigns.	

	Utilization: operation rules need to be developed for all aquifers to manage better.	
	How about including the drillers association in skill development	Mining sector
	The DWS should work with different departments such as basic education to introduce the topic of groundwater at lower grades.	Mining: Exploration Drilling
	Linkage with the NWRS (2)? Chapter. Sector action plans with time frame responsibilities.	
	For future, the department can start at a level of matric or less than that in order to direct young students to a career that will assist department.	TWK Agri (Timber)
	Start with education at schools. Communication between departments. Standardise standards between departments. Education of public sector. Geohydrological department at DWS and district local also Municipalities.	Groundwater consultants
	Very important for organized agriculture help to inform all farmers, commercial as well as emerging, to understand the importance of manage groundwater in same way as surface water. Try to make sure that users of Groundwater do not have wrong perceptions on the sustainability of GW. Better communication between government departments in giving permission for prospecting and mining licences	AgriSA
	My sector can play an important role in terms of rolling out the awareness campaigns in terms GWS is concern. Coordination of stakeholders for consultation of HOIs stakeholders for training/ empowerment in this regard.	IUCMA
	Start educating from young age. Use peoples weather channel or ads. When drilling at schools, show the kids, explain what's happening and how to keep water resources clean. All contractors and consultants should ensure that they work according to existing standards (DWAF, SANS etc.).	Groundwater Consultants