

WESTERN CAPE COMMENTS

# THEME 1-3 & 7

AMCOW - UWC  
 a new secretariat has  
 been started to boost  
 capacity to SA/SADC  
 gov newly acquired  
 groundwater personnel  
 Bayanda

DEA & DP: Amina Sulaiman  
 Contaminated land & Section 30  
 Impact of industry (such as  
 galvanising; tanneries) - how  
 will this be managed to  
 protect our gwater from  
 pollution imports  
 - Industry impact on groundwater  
 should be looked @ specifically

D. Barrow (GROSS) (PRIVATE SECTOR)  
 Essential to the strategy success - is a  
 clear & detailed IMPLEMENTATION STRATEGY.  
 This will require engaged stakeholders, something  
 that will be difficult to achieve. The greatest  
 obstacle to stakeholder engagement is ignorance  
 & lack of knowledge. Groundwater users do  
 not understand groundwater, its source, its flow, its  
 finite nature & how it integrates into the hydrological  
 system. The IMPLEMENTATION STRATEGY must  
 bring groundwater into the information age.

- ① Fragmented arrangement  
 in the National Office  
 - in it addressed by 120  
 to NGS
- ② A one entry point  
 needs to be created to  
 avoid confusion. re  
 any queries re regarding  
 groundwater issues need  
 to be directed to the  
 correct office.

- WC-EADPC reference
- ① Process of NGS development - Stakeholder  
 development prepared stakeholders not  
 consulted
  - ② Had for NGS - special pages "GW not received  
 the attention in past" EIA/WCA conditions  
 omitted.
  - ③ "Geohydrology, Discharged 2003"  
 - Post 2003 at Head Office, was a small  
 geohydrology Directorate who provided Recom-  
 mendations to W/LA's Permitting Authorisation  
 conditions.

- 1. Town Planning & DEVELOPMENT DEPENDING  
 ON UNDERGROUND WATER <sup>level</sup> MUST CONDUCT  
 A CAPACITY STUDY ON THE GROUNDWATER BEFORE  
 COMMENCE WITH ANY WATER CONSUMING  
 DEVELOPMENT. (NEED TO BE REGULATED)  
 municipality.
- 2. GROUND WATER RESOURCE PROTECTION;  
 ACTIVITIES MUST BE ADDED TO NATIONAL  
 KPI. LOCAL GOVERNMENT MUST REPORT  
 ON THE INITIATIVES/MONITORING
- 3. GEOHYDROLOGY REPORT FOR ALL/  
~~EVERY~~ BOREHOLE.

- Bayanda
- ① Engineer with  
 geohydrology training?
  - ② How do we impose  
 restrictions for  
 g/water in terms of  
 drought

④ Funding - Possible if the following factors be  
 considered: Political Will to economically  
 develop a region; @ GW profile e.g. Beaufort West, applied  
 by main users; @ Public Officials professional opinions; @ Public opinions

# THEME 1-3 & 7

Next session 1, 3 & 7

\* Consider future scenarios planning  
 as a means to secure funding &  
 raise awareness for ground water.

- Climate change adaptation
- Ecosystem-based adaptation  
 or disaster risk reduction.

e.g. drought causes low surface water  
 ∴ need to turn to ground water.

GA's Sect. 39  
 of NWA.

> 400m<sup>3</sup>/ha/a  
 quite high.

When cut back  
 what about authorised  
 water users will  
 they loose their water  
 allocation. Investment  
 was done!

- ① Explicit departmental task  
 team to drive implementation  
 post publishing
- ② Involve "groundwater  
 champions" from other  
 sections during NGS  
 development and implementation?  
 Ensures buy in.
- ③ Finance = very very NB. stakeholder  
 can provide input on a project by  
 project basis (no top longevty). How  
 to overcome this hurdle?

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 also representative for FIVCRT -  
 Round Table Energy,  
 water, land for  
 fruit industry & wine  
 industry

- Reference: PPP's
- PPP's with farmer  
 associations to develop  
 borehole well fields
  - Need a groundwater  
 champion to promote/  
 market groundwater.

Cherrie Forbes  
 PhD Student (UCT)  
 Paleocology & EBA in Great Wittebaek Area.

DEA & DP - Amina Sulaiman  
 Contaminated land & Section 30

How will DWS find the  
 capacity to develop strong  
 national gwater leadership and  
 how will this capacity be  
 distributed.

What was the barrier to  
 implement Groundwater  
 strategy (2010). These lessons  
 need to be incorporated in  
 the strategy.

Groundwater /  
 Focus on goal-based  
 regulation as opposed  
 to prescriptive regulation  
 Kevin Putter

Kevin Putter



# 3 Theme 1-3 & 7

## Issues

- Most municipalities do not have technical personnel/groundwater technicians as a result implementations are not done
- Lack of awareness in municipalities which result in less interest in groundwater planning or implementation

## Possible Solutions

- Embark on groundwater awareness to local authorities
- Review funding model to municipalities which should cater for groundwater in planning budget
- Municipalities to hire groundwater technical person (basic level)
  - BGCMA already started support programme to help municipality employees (technical) how to do monitoring - John Sibanyoni - Geologist

Education & marketing - campaign

Promote successful projects to municipalities or areas who are distrustful of gov & don't see it as reliable

Groundwater remediation is not sufficiently covered in the water act. <sup>legislation</sup> Other countries have specific guidelines for known contaminants.

Researcher

Marathon Theori (CER) (NGO Sector). The strategy needs to be published in a report policy context -> with legislation. It would be ideal for the strategy to be published as part of the ~~the~~ NWRS as it is a binding strategy

Norms & Standards?

Do these relate to "quality & quantity" guidelines?

Or for a specific setting / Geological / locality?

Or to management practises? Researcher.

Groundwater Monitoring Committees are in need for G/water needs. How can financial assistance be provided? DWWS / CMA'S

- \* Not all municipalities to be "forced" or coerced into using groundwater; i.e. only where it is feasible and/or required.
  - > informed by groundwater potential
  - > strategic water source areas.
  - > etc:
- \* groundwater should not be seen as only a drought relief option.

# THEME 4, 6, 8 & 9

- Protection must be through definition of G/w Reserves as a clear RDT methodology
- Protection through EIA process - need accurate maps of g/w quantity, quality & vulnerability
- water level & quality monitoring is crucial

National Acts & Regulations e.g. NWA, NWRS, Regulations, etc. focus on point source pollution and its effects and consequences to the polluter. However, this Groundwater Strategy can influence other intergovernmental avenues to curb against groundwater pollution (as one example) where, for instance, random borehole drilling is not regulated but the POTENTIAL for groundwater pollution increases with this activity. Another example is its influence on a legislation (supreme). Therefore this Groundwater Strategy needs to drive and influence other implementation tools from a practical point of view.

- 3) Higher level planning can direct resources and knowledge to support local decision-making, but it should not necessarily define the problems on which decisions need to be made, because it is more difficult for removed authorities to understand or see the priorities that a local area should have for groundwater.
  - > This could mean that highly planned and defined norms and standards get passed down to CMAs, who then translate them into their locally specific context
  - > Essential in order to have a relevant set of norms for a region

## STRATEGY APPROACH TO BOREHOLE INFORMATION

- 1) Lawyer or DWS to travel law to see what legislative back up the requirement for information from boreholes.
- 2) Requirement for Registrar that Borehole info is registered & GPS location, depth, water quality parameters, quantity of water produced
- 3) Placed into a database where allows for data to be queried

## NC-EADPC (Jeffreyson) WSA's Themes 4, 6, 8 & 9

Planning - WSDPs basically deals with step 2  
 (higher level planning) NWAct deals with protection, use, development, control, management. Therefore to establish/develop Catchment Management Plans with G/w aspects, then incorporate CMAPs as sector plan into IDPs and SDFs (Spatial Development Frameworks) under S2 CMA Act. Therefore G/w aspects will be addressed on a regional level as part of municipal or regional planning.  
 G/w information Management - Data management be regulated via law reform process as Regulations.

## Session

The question of how (contaminants) land water can be addressed and regulated through support by the Groundwater Strategy is quite important as groundwater pollution impacts ~~water~~ so frequently accompany contaminated land. The Waste Act provides some a regulatory framework that must be aligned with the Water Act and the Strategy.



# 2// THEME 4, 6, 8 & 9

Annex 1 + Annex 2  
DEADP + FLOW - Fruit  
Pond Table

Recommended:  
- Ground water regulation - at local CMA level

- However, Kalahari-Karoo aquifer which goes transboundary SA, Botswana, Namibia - these international negotiations need to be taken up at a national level.

Dele Barrow (GFOSS)

The promotion, protection, publicising & correct harnessing of groundwater will be achieved when stakeholders collectively become informed of what groundwater is, where it comes from & how to manage it. Only then can we facilitate a stakeholder response, rather than a top down (Policy → stakeholder) approach.

Monitoring of WL & quality in all WMA's needs to be improved! There has been a dramatic reduction in the number of BTLs that have been monitored over the last decade.

1. GEOHYDROLOGY REPORT FOR ALL & EVERY BOREHOLE

↓  
RISK ASSESSMENT  
RISK MANAGEMENT  
↓  
LINKED TO KPI'S

Marthon Threat (CER) (NGO)  
There is no legislative mechanism in the NWA for providing for the declaration of "protected resources" or "no-go" areas. We strongly recommend the incorporation of such a section in the NWA.

Marthon Threat (CER) (NGO)  
There is dire need for a regulatory audit in the different institutions charged with the implementation of the strategy

① Centralizing data → everyone needs baseline data for studies; i.e. if you make your data available others will do the same.

Most of the strategic actions focus on the strategic governance level rather than local actions?

Kevin Pitsoer

# 3// THEME 4, 6, 8 & 9

Ananda Mkhonza (CER) - NGO

Protection of widely distributed groundwater resources:  
- protection needs to be "source-based" more than "resource-based". These sources of groundwaters which are strategic in nature (i.e. that they are of national importance, for example) should be regulated in terms of the law. This will automatically achieve groundwater resource protection, without having to fragment protection for each groundwater resource.

Municipal & hydro geologist work together to manage groundwater

Begin from municipalities to follow G/W recommendations and well field management

Critical issues:

G/W education and positive working schemes that are not emergency schemes

Protection of G/W resources:  
Compulsion or legal requirement to submit all contamination assessment data to a central database

Remotus Municipal Bylaws.

• Currently very much outdated, but needs to be updated & could be used.  
e.g. Mun's using G/W for supplementing Domestic supplies.

The accumulative effect of G/W taking. Especially when verification of a property indicated that a property does not have any water entitlement. Then the property can get access to G/W via the G/A.

We need to establish a critical path for the strategic actions

Kevin Pitsoer

G/W to be drilled. eg.

fountain / spring  
Surface water.

Groundwater when borehole drilled into earth crust.

A strategic meeting needs to be held between CWS, municipalities & consultants to discuss & agree on format of all groundwater related data & how it should be captured.



# THEME 5, 10 & 11

NGS document to be aligned with CMA's Catchment Management Strategy.

Keep doc's simplistic for stakeholders to understand.

Session 5, 10 & 11

Academic institutions' role...

eg. Dept of Biological Sciences @ UCT... students are qualified after 3-4 years but do not have the practical skills to obtain a job... overqualified.

→ this should be communicated to students beforehand so they are aware.

→ training/internships built into undergrad or Honours degrees so that they have practical experience.

Cherie Fikes  
PhD student (UCT)  
Adaptology

① Big misunderstanding of g/water at municipalities.

② Local-level management - budgets need to be made available

③ Africa - sustainable use of g/water - monitoring + management

④ Pte sector must get far more involved.

Improvement  
Education & mentoring  
Introduce hydrogeologists to municipal management roles

Capacity Gap  
at engaging firms to train on projects

Private sector in Education  
Internships

Enforcement /

Protection of g/water Resources critical. - Monitoring  
Care taken against over abstraction /

Polluting water resources

Old files have valuable information on g/water Data.  
eg. Solid Waste Site Permits as issued by (DWA) not DW&S.

We need to link economics to the value of water, also when applying for a licence. e.g. time frames, etc.

Coastal Aquifer and the interaction with the estuarine systems needs to be protected against over abstraction.

# THEME 12 (LOCAL ACTION)

WC: EANC To Jefferson

Aquifer management

- Shared aquifer resources to be in sector plans WSPs or preferably C/Plans to be incorporated into regional spatial development plans. The management and funding of these aquifers will then become enforceable at local regional level based on SPLUMA 2/ or MSA CDBs.

Industries

- Strategic action to list & develop source protection & P&R and to increase remediation, because historically industries focused only on GW remediation

① Action items expected from water users downstream eg. source protection is sometimes not practical eg. a CRMA requirement for a Dam <sup>upstream</sup> does not have linked functions/ responsibility of water used by a WSP in an area 300 kms away, although using the same water (eg. on the Sonderend river).

Communication always important...  
? Why was this session without Mun. g/water users. Pls. check upon water users when distributing invited. (not ⊖ pls see as ⊕)

- Need to have an implementation strategy!

Need to bring groundwater into the information age!

Data Barrow. (GROSS)

This is not an action PLAN!  
An action plan is specific, with details of who & how. If a proper action plan is not developed, there will not be action. Please don't call this document an action plan.

Community awareness  
Campaigns

When EIA's are started often they include GW studies but not water conservation - this should be encouraged with incentives i.e. easier passing of EIA's or WMA's should these factors be included

OR

Critical determinants in my sector where protection and conservation put in place in the planning phase of a project. make it a requirement for EIA's & WMA's

Local Action: from an NGO perspective

↳ CMA establishment & the necessary delegation of powers is necessary for effectively rolling out the NGS at local level

DNS needs to clearly stipulate & make a budget allocation for

WAs + CMAs to actively pursue air mandates, in order to ensure public participation & involvement in implementation of the NGS (CMA)