



RAND WATER

*MANAGING AND PLANNING WATER SERVICES
RAND WATER URBAN WATER SYSTEMS*

PRESENTER: ENOS NGOBE

10 – 12 MARCH 08

OUTLINE

- **Rand Water head office, history and encroachment**
- **Encroachment**
- **Rand Water urban water systems**
- **49 encroachments**
- **Distribution of 49 encroachments**
- **Covered and covered risk**
- **The challenge**
- **Local government**
- **LG activities**
- **Types of encroachments**



OUTLINE (cont.)

- **Example**
- **Meredale burst pipeline**
- **Impambanamgwaqo! Zulu, meaning “Crossroads”**
- **Approach**
- **Encroachment summit stakeholders**
- **Gauteng encroachment summit**
- **Way forward**
- **Highlights**
- **Acknowledgements**





Encroachment.mpg



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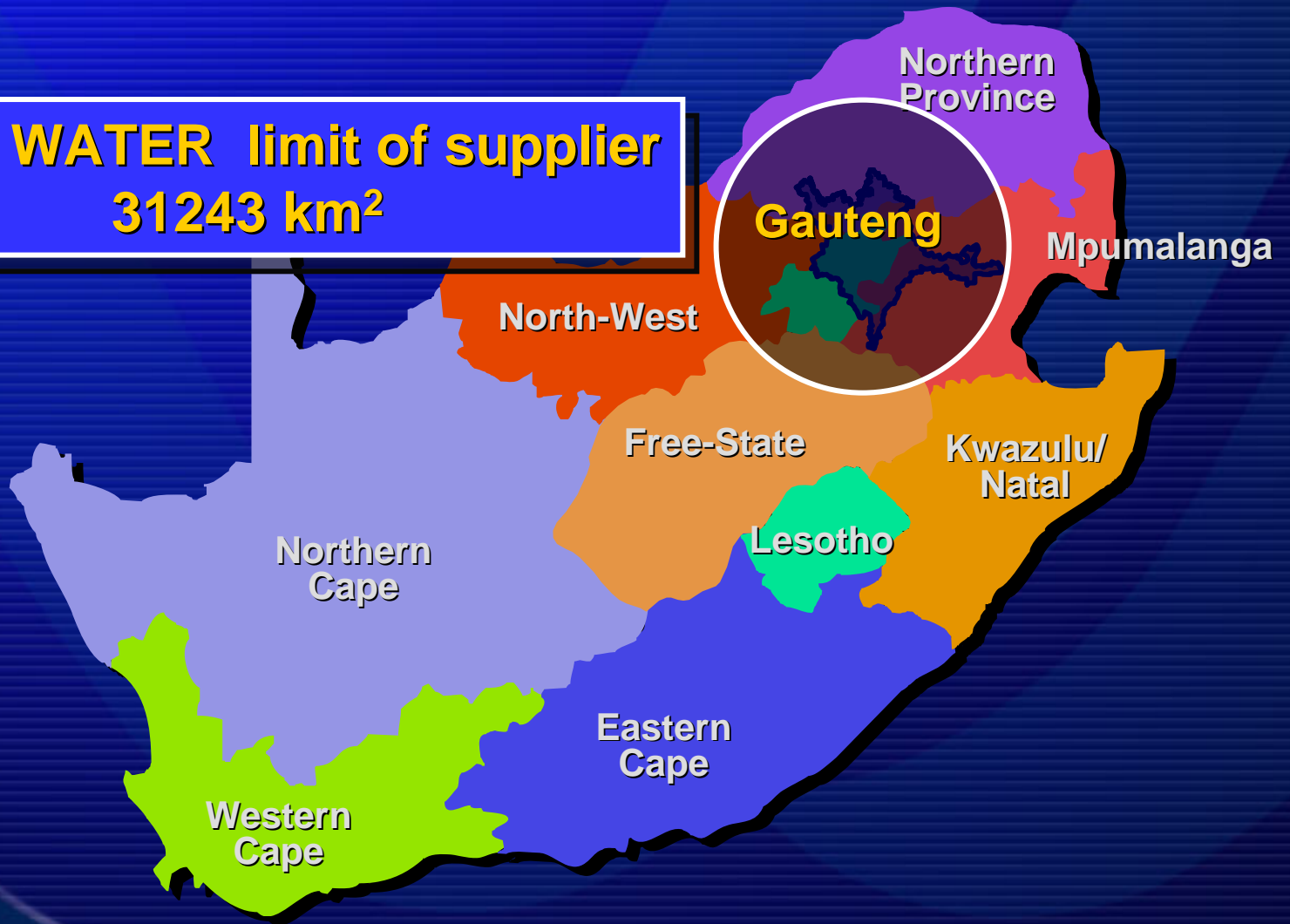
AN ENCROACHMENT IS :

- **Any individual who knowingly or unknowingly occupies, settles on or trespasses on Rand Water property (servitudes, culverts, valve boxes/chambers etc).**
- **Any individual who has an unauthorized connection on Rand Water's pipeline is also encroaching because the water is being illegally taken from Rand Water's pipe(s).**



RAND WATER URBAN SYSTEMS

RAND WATER limit of supplier
31243 km²



49 ENCROACHMENTS DISTRIBUTIONS

- **17 encroachments are in JHB Metro in GP**
- **20 encroachments are in Ekurhuleni Metro in GP**
- **6 encroachments are in Tshwane Metro in GP**
- **1 encroachment are in Govani Mbeki Local Council in MP**
- **1 encroachment are in West Rand District in GP**
- **4 encroachments are in Emfuleni Local Council**



COVERED RISK COST MANAGEMENT

Name of pipeline	Cost of M& O	Type of O&M
O5	R3 million	Burst
J8	R60 000	Burst
B8	R 30 million	Burst



UNCOVERED RISK EXPOSURE JHB METRO

Area	Pipeline	Diameter (mm)	Flow rate ML/day
Dlamini	F41	1200	140
Dube GTS	F4	405	5.46
Diepkloof	C9 & G10	840 & 915	48 & 59
Leratong	F(15,28,32 & 44)	915, 610, 940 & 1100	60, 25, 38, 122
Orange Farm	T4	500	20
Eikenhof	A12 & 19 & B12	2100, 2300 & 2100	415, 500 & 430



THE "CHALLENGE"

- **Rand Water has 3131km of pipelines cutting across Municipalities**
- **Now Water Services/National Water Acts : servitudes to be registered**
- **Local Governments: Municipal System/Structures Acts: Consults local government on projects through ward councilors/ward committee**
- **Housing Act: provision of accommodation**
- **Defunct Pass Law/Group areas Acts/Rand Water statutes: people informally settle in every open land**



THE "CHALLENGE" Continues

- **Rural to urban drift: Since 1994, urbanization**
- **Neighbouring countries: trend to settle in RSA**
- **Our servitudes range from 6m to 42 m**
- **Provide open space within dense urban area**
- **Backlog housing: people settle on pipeline servitudes.**



THE "CHALLENGE" Continues

- **Example: assume 50 m x 20 m stand:**
 - **1 000 km = 20 000 stands = 100 000 people**
- **Actual "single" or equivalent length = ?**
- **Target area: Gauteng**
- **Economic heartland**
- **ENCROACHMENTS IMPACT ON DAILY ACTIVITIES: Houses, schools, clinics, shops, gardens, illegal connections, outcry for assistance, security, etc**
- **New pipelines/ infrastructure to be constructed**



THE "CHALLENGE" Continues

- Existing infrastructure to be operated/maintained/renovated/replaced
- Regular inspections, meter reading
- Water Demand (and management thereof)
- Safety issues
- Encroachments impact on short and long term
- Once people are relocated (**reactive**), maintain servitude area, prevent a repeat and manage potential areas (**proactive**)



THE "CHALLENGE" Continues

- Developmental perspective: addressing needs
- Many Stakeholders involved : Internal & External
- Rand Water's image:
 - only "hard" issues: technical ?
 - or only "soft" issues: people ?
 - **Aim:** balanced approach - Community Involvement

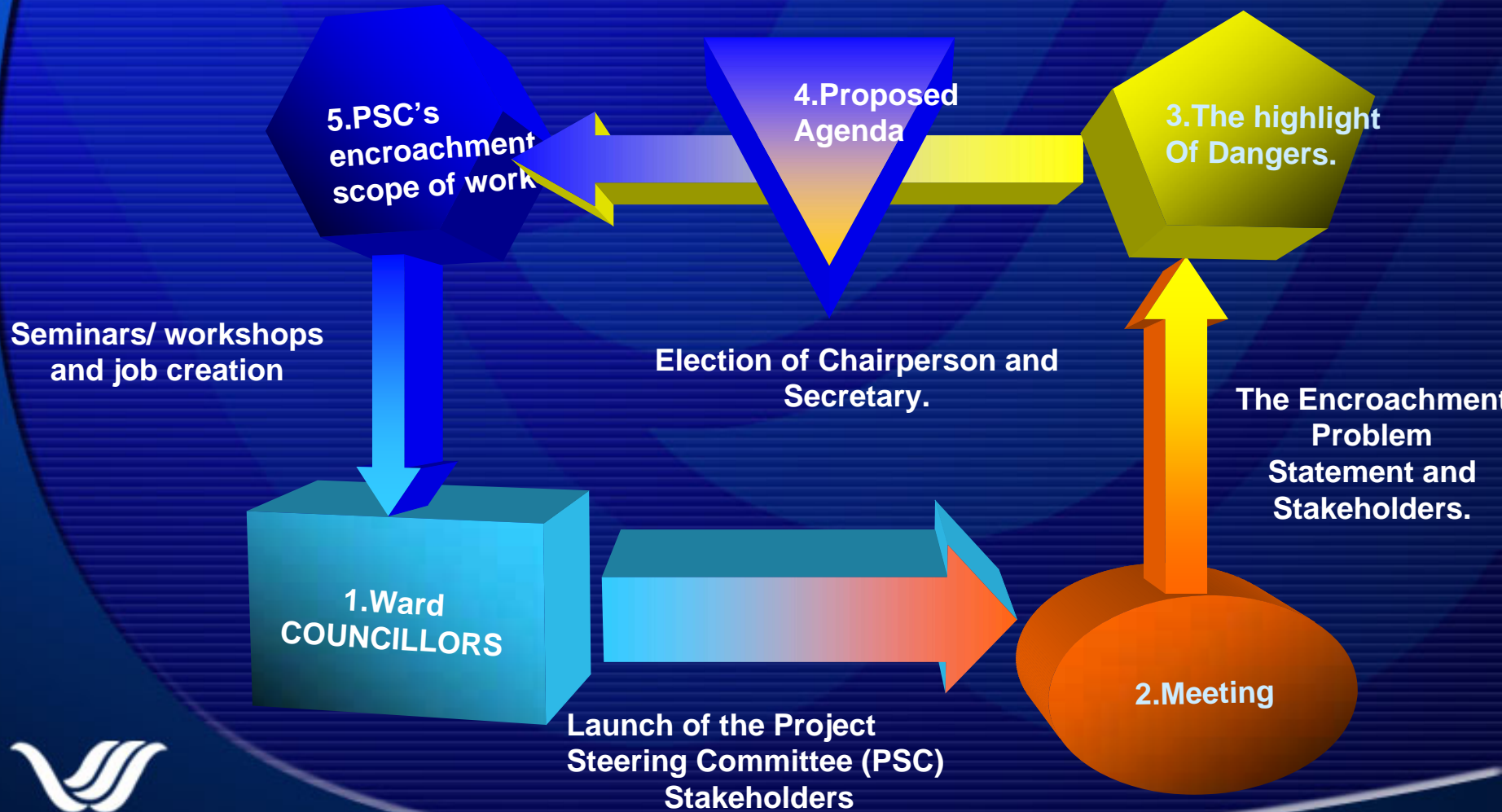


THE REAL CHALLENGE...

- “Forceful” removal vs “Normal approach” vs “Participative Approach”
- **Remember:** they are our customers!
(Targets or Beneficiaries ?)
- Getting “rid” of an encroachment
is only a partial solution,
maintaining a clear servitude
and keeping all stakeholders happy
is the real challenge!



(LG) LOCAL GOVERNMENT IMPLEMENTATION PLAN



LG IMPLEMENTATION ACTIVITIES

- **To install white pipeline centerline beacons in each encroached pipeline**
- **To install Blue servitude beacons each encroached pipeline**
- **To do Project Steering Committee (PSC) orientation workshop for 20 delegates**
- **To do Project Steering Committee unit standard certification brief 20 delegates**
- **To do two community awareness workshops for 200 delegates in each local government.**



LG IMPLEMENTATION ACTIVITIES cont

- To build and plaster sign wall in each encroached pipeline
- To sign the legend of the pipeline:
 - **External: For safety stay away from Rand Water pipelines, Rand Water logo and centre number**
 - **Internal: name, date, diameter, servitude size, water flow rate and pressure**



LG IMPLEMENTATION ACTIVITIES cont

- **Job creation or income generation**
 - **PSC: chairpersons, secretaries and members**
 - **Beacon: coordinators and labourers**
 - **Sign walls: bricklayers, labourers and sign writes.**
- **We have completed 2 projects and we are busy with 5 projects this 07/08 financial year.**
- **We planned to employ 378 temporary staff, to date we had employed about 4000 temp.**



LERATONG IN JHB METRO



INFORMAL SETTLEMENT ON SERVIDE



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ACTIVITIES IN RAND WATER'S PIPELINE AND SERVITUDE



Mielies planted on Rand Water's servitude

**Mielies and dagga
In Meadowlands Zone
11**



ENDANGERING LIFE IN ORANGE FARM



endangering.mpg



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EXAMPLE OF LEAKING OF PIPELINE









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The burst pipeline G23

Impambanamgwaqo!

Zulu, meaning "Crossroads"

"The time to seize the opportunity is now, for we are at a historical moment where the water of opportunity could flow either way"

"The discovery of the internet and the use of computers to get information and share knowledge also generated high expectations among our people"

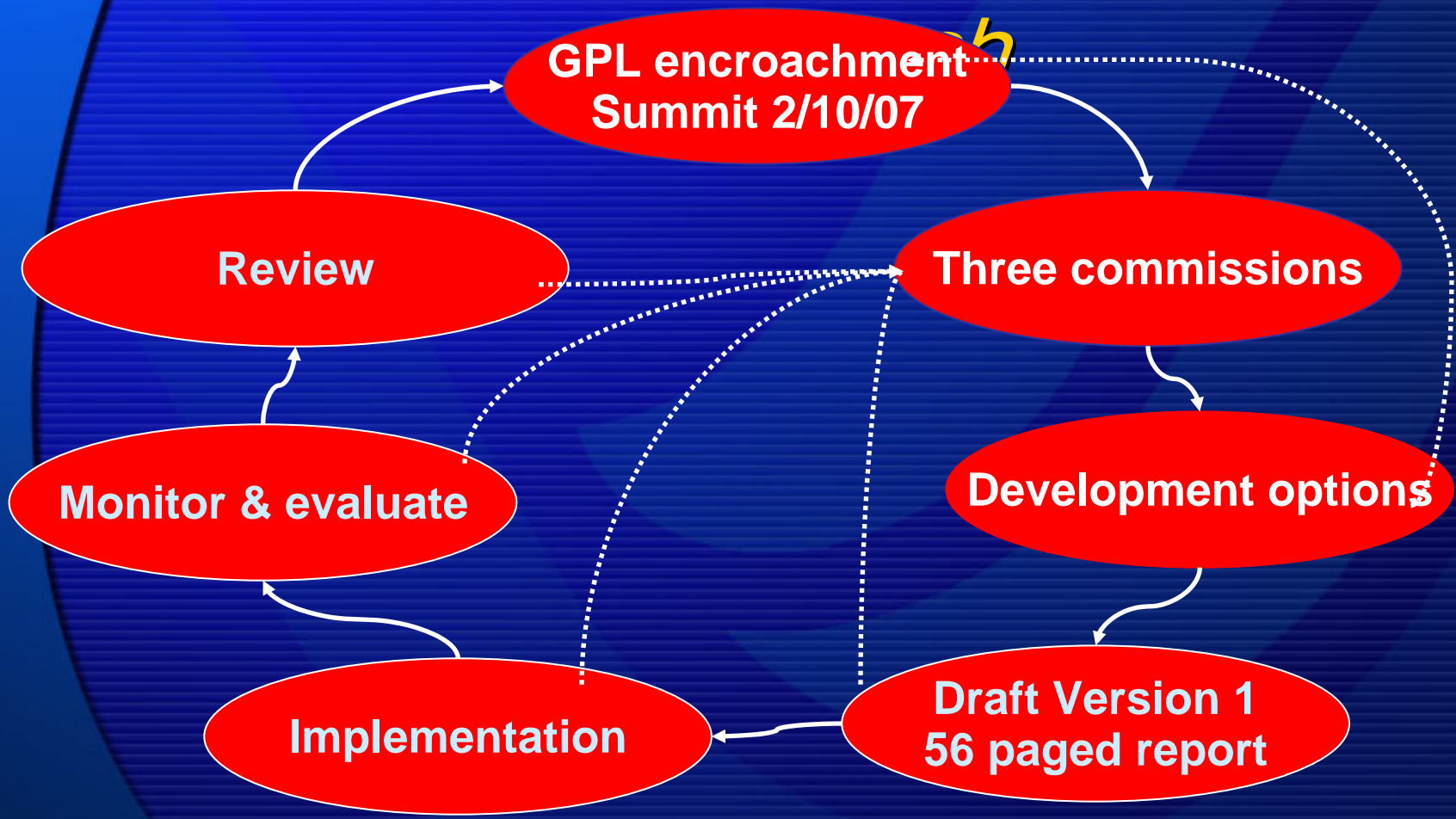
"It is a vision of what could happen if we were could improve governance, information technology and water resource management"

"It is a story of the rising tide of inefficiencies, traps and legacies"

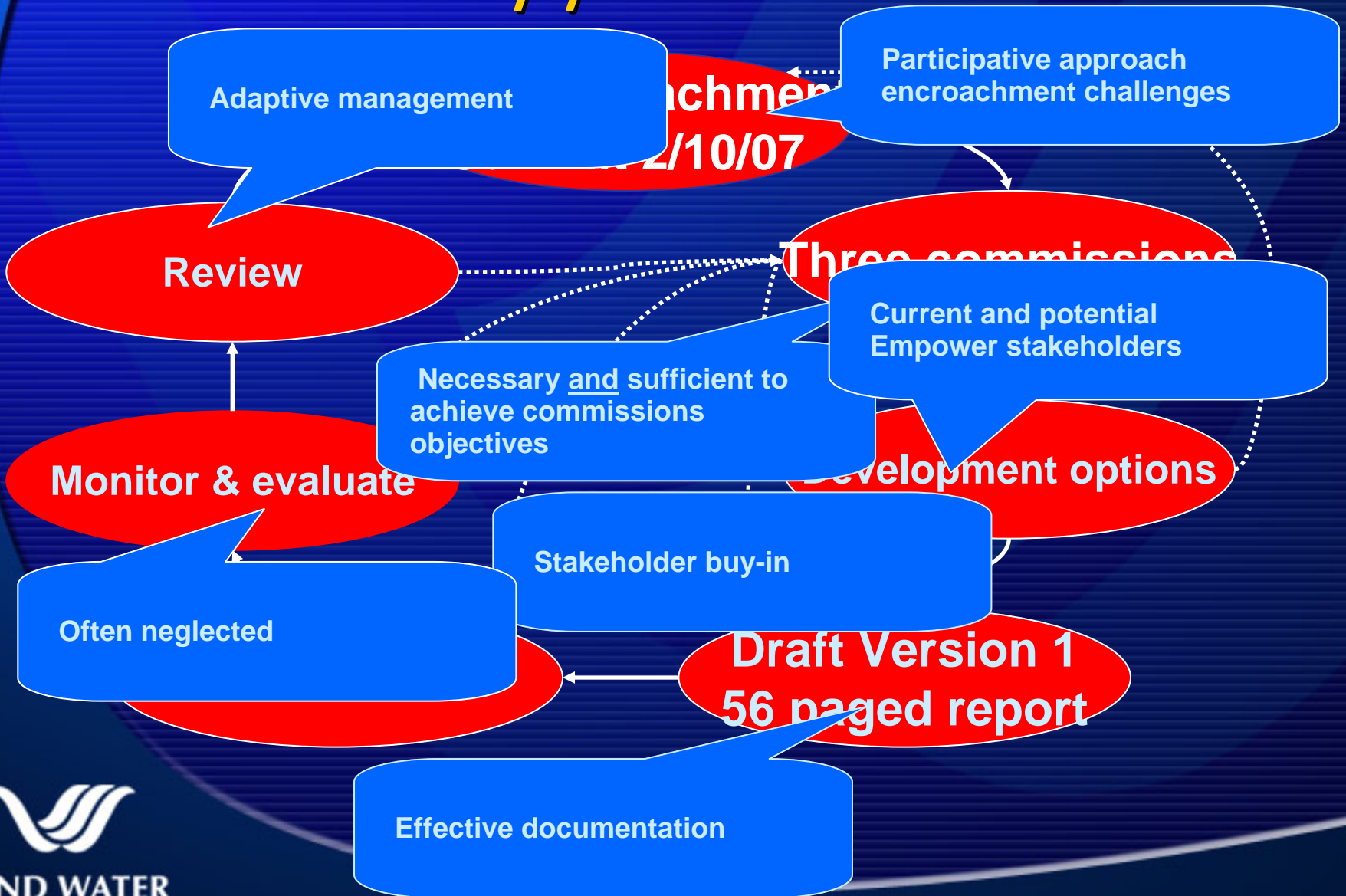
"But it is not a free-flowing stream that we envisage in this river of wealth. There are still obstacles and boulders that interrupt the maintenance water pipeline and servitude "

"Numerous instances of poor planning result in situations where there backlog of houses and water system in the widespread environmental degradation"

"Land and Water shortages are made more visible by the physical, infrastructure and institutional inadequacies of the region's political systems"



Approach



ENCROACHMENT SUMMIT STAKEHOLDERS

- **Eskom**
- **Telkom**
- **Petronet**
- **Spoornet**
- **SARCC/Metro rail**
- **Sasol Gas**
- **Rand Water**
- **Local govt, Gauteng Province Legislature-
national govt**
- **Informal settlement committes/leadership**



GAUTENG ENCROACHMENT SUMMIT

1. Gauteng Province Legislature convene the Encroachment summit on The 2th Ocober 07

2. Encroachment Summit Session

3. Plenary Deliberation on the subject

4. Plenary Session Report back

5. Three Commissions

6. Commission One

7. Commission Two

8. Commission Three

9. Draft 56 paged report version 1



WAY FORWARD

- **Planning framework (log)**
 - Overall objectives, medium-term objectives, short-term objectives: -quick wins
- **Responsible**
- **Timeframes**
- **Assumptions, pre-requisites, risks and challenges**
- **Outcomes are: communes, political, institutional, administrative, legal and resources.**



WAY FORWARD continue

- **Three commissions handles the same focus area**
 - **Prevention**
 - **Encroachment**
 - **Monitoring, evaluation and prevention**
- **Quick wins**
 - **Baseline data**
- **Principle underpinning Quick wins**
 - **3 – 6 months on key issues and database development**
 - **Time of next review and premier coordinating forum**



SUMMARY

Highlighted:

- **Encroachment Issue: a major concern**
- **Major challenges facing Servitude Companies**
- **Multi-disciplinary effort required/Summit**
- **All stakeholders to be involved**
- **Recognition of all role players**
- **Build - “Esprit de Corps”, Partnerships**
- **Process combines: technical & social**
- **“Different” approaches - Success story**
- **“Basic model”: The way forward - guidelines**
- **New era - hour glass turned around**
- **Build Image (Perception): Servitude Companies care**
- **Both short and long term goals**



ACKNOWLEDGEMENTS

- Rand Water/Gauteng Province Legislature
- IWRM organizer: for this opportunity
- All servitude stakeholders:
- All members from Project/Task Teams :
 - **Rand Water personnel**
 - **Project Steering Committee members/Summit**
- All those who understand this issue and have contributed, ...and will do so in future

***YOUR TIME IS VALUABLE
YOUR EFFORT IS APPRECIATED***





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Thank You