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DEPLOYMENT OF ENGINEERING CAPACITY

**Presentation to Portfolio
Committee
24 May 2006**

**Engineers Now to Ensure Role-out
by Growing Young Skills**



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Provincial and Local Government
REPUBLIC OF SOUTH AFRICA

Deliverables (total ~ R1bn)

- Attend to the acceleration of MIG and capital projects
- Attend to O&M problems relating to
 - water quality,
 - losses,
 - sewerage spills and;
 - impassable roads etc
- Develop motivations for repairs or rebuilding in chronic cases and find additional sources of funding
- Consider interventions which can reduce expenditure eg
 - reduce water losses
- Consider interventions which can increase income eg
 - prepayment meters,
 - registering new properties and adding them to the billing system,
 - attending to out of date tariffs and related accounts and;
 - developing more industrial or affluent suburbs which offer good income

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Deployed to date

- 39 engineers
- 75 students
- 15 graduates
- Plus ~ 90 in-house to be trained!
- Interventions in 62 municipalities considering support given to locals through the districts

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Successes to date

- Many projects which have been on hold for long periods now under construction
- Several projects which required expert advice or an experienced person to negotiate around a problem now complete
- Several prepayment tenders ready to be advertised or awarded
- Tariff checks have resulted in immediate changes to accounts and increased cash flow to municipalities
- Several water loss situations already being addressed with associated savings
- Several sewerage spillage problems being attended to

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Challenges - Capacity

Lack of capacity to handle a range of tasks such as MIG, capital and O&M activities in

- Water
- Sanitation
- Roads and stormwater
- Housing

As a result

- Projects and maintenance not taking place
- Projects are signed off and paid for, but are incomplete
- Materials are paid for but are no where to be found

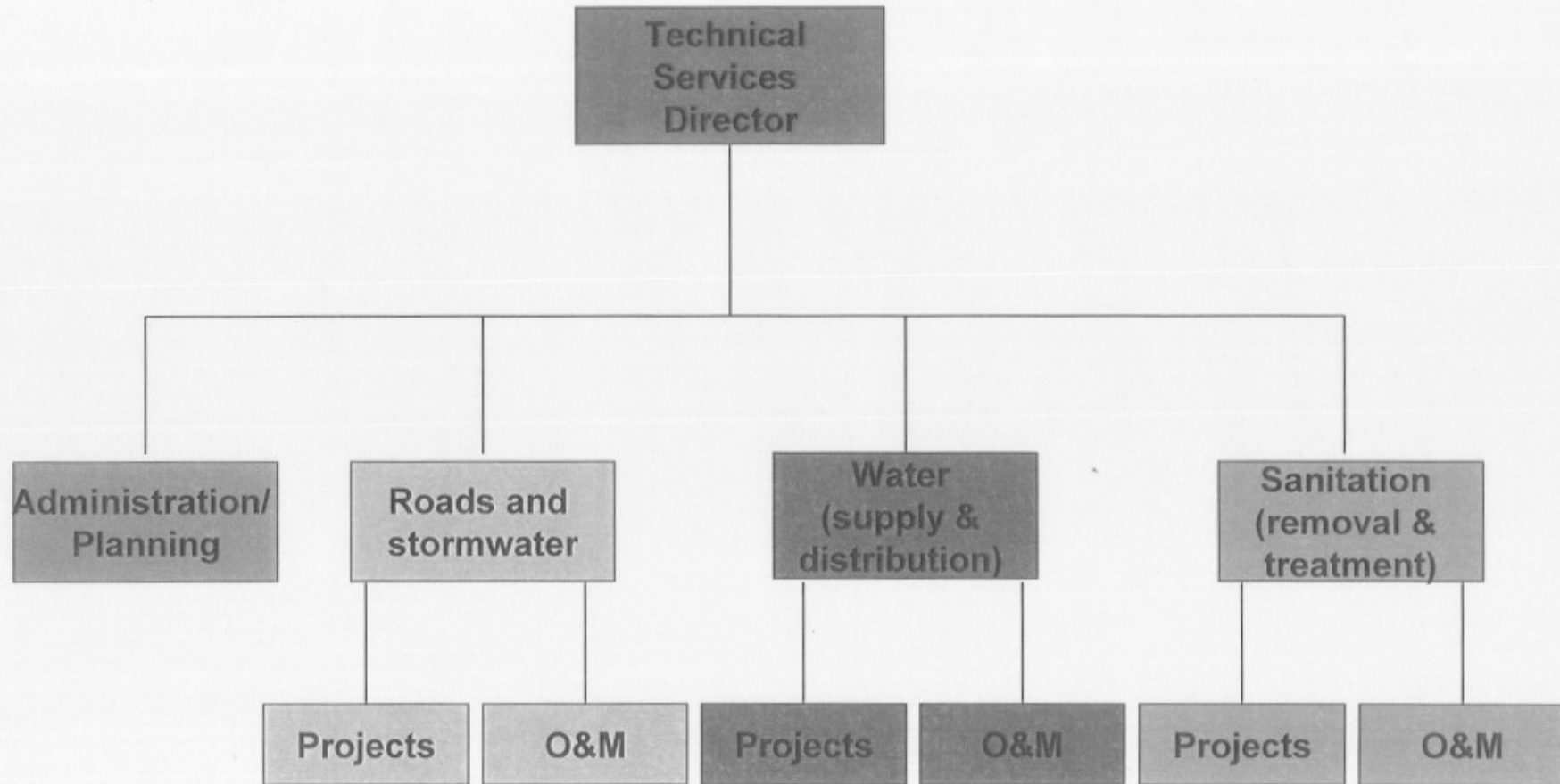
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Recommendation – Revisit functions & fill posts



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Challenges - Experience

Lack of experience or inappropriate experience to be able to

- Make technical decisions
- Carry out long term planning
- Manage consultants
- Retain students after 6 month contracts when seniors complete

As a result

- Quality of work very poor
- Very high prices being accepted, both in consulting fees and for the products / projects being delivered
- Over designing – where basic infrastructure is called for – often unsustainable
- Under or inadequate designs – often lack of experience

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Challenges – Morale & productivity

Low morale and poor productivity due to:

- Established staff being frustrated with interference and concerns about redundancy
- Young staff not feeling confident enough to ask for assistance for fear of being considered incompetent
- Politicians and senior officials sidelining technical staff as they insist on 'sticking to the book' in terms of their professional code of ethics e.g. delivering appropriate designs, abiding by legislation and disagreeing with choices of consultants, contracts and suppliers etc

As a result

- Existing senior staff are not being utilized effectively
- Young staff are not learning effectively

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Recommendations

Employ skilled seniors on long term contracts and fully utilize existing seniors. Duties to include:

- Succession planning
- Employing or selecting 2 or 3 successors to prepare for the job
- Training of young technical staff (employ dedicated mentors and/or supervisors where training capacity not available)

To be considered:

- Ensure seniors are given the authority to carry out their duties
- Define qualifications, years of experience and competencies needed per post
- Carry out competency and psychometric tests when employing

Implement formal change manage programmes to build teams and get the most out of all staff!

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Challenges – Attraction & retention

High staff turnover (including students and graduates) due to:

- Low morale
- Early retirement
- Salaries inadequate in some municipalities
- LGSETA stipends too low
- Agreed monthly rate for graduates too low and 6 month contract too short to attract and retain graduates

As a result

- Loss of capacity
- Loss of institutional knowledge
- Loss of up and coming juniors

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