Outline

1. Allocation for the 2011 MTEF period
2. Consolidation of financial resources in addressing short-term solution
3. Funding for long-term solution
4. Funding lessons from other countries
5. Recommended future funding for AMD
6. Conclusions
Combined total allocation for 2011 MTEF period

- **2011 MTEF period: R553million**

<table>
<thead>
<tr>
<th>Institution</th>
<th>ZAR’ million</th>
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<tr>
<td>Department of Mineral Resources (DMR)</td>
<td>328</td>
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<tr>
<td>Department of Water Affairs (DWA)</td>
<td>225</td>
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<td><strong>Total allocation</strong></td>
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Combined total allocation for 2011 MTEF period

- **Total for 2011 MTEF period: R553million**
- **Department of Mineral Resources (DMR) = R328million**

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<th>Item</th>
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<tr>
<td>Rehabilitation of mines</td>
<td>DMR main budget</td>
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<td>Rehabilitation of mines</td>
<td>Mintek transfer</td>
<td>60</td>
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<tr>
<td>Acid mine water (AMD) treatment technology</td>
<td>Mintek transfer</td>
<td>30</td>
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<tr>
<td>Assistance to mines for pumping acid mine water (AMD)</td>
<td>Mines/private companies</td>
<td>54</td>
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<tr>
<td>Witwatersrand ingress project</td>
<td>Council for Geo-Science</td>
<td>56</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>328</strong></td>
</tr>
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</table>
Allocation for Acid Mine Drainage: Vote 32 – Department of Mineral Resources (DMR) – Assistance to mines/private companies

2007/08 to 2010/11:

- **R129.1million**
  - Assistance or subsidies to mines to pump extraneous underground water at Grootvlei Mine and Witwatersrand Basin, conduct research, develop and implement strategic solutions

2011 MTEF period (Total = R140million):

- **R54million** over the 2011 MTEF period (**R18million; R18million; R18million**)
  - Assistance or subsidies to mines/private companies to pump extraneous underground water at Grootvlei Mine and Witwatersrand Basin, conduct research, develop and implement strategic solutions
Allocation for Acid Mine Drainage: Vote 32 – Department of Mineral Resources (DMR) – Assistance to mines/private companies/mines

2011 MTEF period:

- **R56 million** over the 2011 MTEF period (**R17 million; R18 million; R21 million**)
  - Transfer to the Council for Geo-science: Acid Mine Drainage – Witwatersrand mine water ingress project

- **R30 million** over the 2011 MTEF period (**0; R10 million; R20 million**)
  - Council for Mineral Technology (Mintek) – mine water treatment technology
Allocation for Acid Mine Drainage: Vote 32 – Department of Mineral Resources (DMR) – Mine Water Management

2011 MTEF period:

- **R128.3million** over the 2011 MTEF period
  
  (R31.8million; R35.7million; R60.8million)
  
  - R18million for programme administration
  
  - R110million for rehabilitation of mines projects

- **R60million** over the 2011 MTEF period
  
  (R0million; R30million; R30million)
  
  - Transfer to Mintek for rehabilitation of mines
Acid Mine Drainage Allocation: Vote 38: Department of Water Affairs

- No previous allocation

2011 MTEF Period:
- R225million (R75million; R150million)
  - R5million – for development of long-term strategy on how the RSA should deal with the problem in future. This includes national future funding model
  - R220million – for short-term solution
Consolidation of resources for short-term solution

- **DMR** and **DWA** needs to ensure consolidation of both financial and technical resources from their entities in addressing the acid mine drainage.

- Utilization of technical and financial resources from Council for Mineral Technology and Research (CMTR), Council for Geo-science, Trans-Caledon Tunnel Authority (TCTA) and private institutions funded by DFIs needs to be explored.

- Feasibility of selling neutralised AMD for industrial or other commercial purposes needs to be explored.
Funding for Long-term solution

- Acid mine drainage related initiatives that have been funded by South African Development Finance Institutions (i.e. Development Bank of the Southern Africa (DBSA) and Industrial Development Corporation (IDC)) needs to be taken into account when addressing long-term solution. To date a joint investment of up to **R78 million** has been made by private institutions together with DBSA (**R10 million**) & IDC (**R5 million**)
Through funding from DFIs, feasibility studies, design, and treatment facilities have been completed since 2005.

Business community including mines have expressed interest in funding long-term solution.

Opportunity for Public Private Partnership (PPP) should be explored, as a matter of urgency, by DWA/DMR with the assistance of National Treasury’s PPP unit. This would create a platform for funding of AMD challenge to be re-directed to social infrastructure projects.
Lessons that can be learned from the USA’s approach to AMD

- Discussions took place between NT & United States Trade and Development Agency (USTDA) to finance country study tour on acid mine drainage. Preparations are in the process of being finalised. This would be an opportunity to learn from other countries, gain a better understanding of how the USA’s ‘Super-fund’ for environmental management works.

- The visit will create a platform for accessing technical resources. USTDA has expressed interest in providing small-scale financial assistance in addressing the problem.

- NT facilitated discussions between DWA & USTDA including discussions with TCTA.
Recommended future funding option - Environmental and water pollution fund (Enforcement of National Water Act & other Acts)

- Acid mine water levy
- General Environmental pollution
- Penalties for non-compliance at various levels
- National Revenue Fund
  - Penalty for water pollution from **point sources** (waste water treatment works, industries)
  - Penalty for water pollution from **non-point sources** (agriculture)

Penalties for non-compliance at various levels
Recommendation - Strengthening of Compliance and Monitoring Enforcement (CME) Unit of DWA

Point source pollution: discharges from municipalities and industries

Non-point source pollution: Outflow from agriculture areas

Abstraction control (e.g. curb & eliminate water theft)

Compliance Monitoring Enforcement Unit (25 staff members)

Groundwater pollution including pollution by mining activities (AMD)

Overall compliance with licences
Conclusion

- Fast-track exploration of PPP approach/model

- Explore creation of environmental levy that would finance all forms of pollution (including acid mine drainage)