




EAST COAST SEAWATER DESALINATION FEASIBILITY STUDY

2 September 2010





Strategy Steering Committee Meeting 1

Pre-Feasibility Investigation



- Report completed in May 2009
- Project Management Committee:
 - Umgeni Water
 - DWAF
 - eThekweni Water & Sanitation
- At a **Pre-Feasibility level of detail** the Desalination Option is:
 - Technically and environmentally feasible
 - Competitive with Mkomazi Water Project Ph 1
- Extend the study to a **detailed feasibility level**
- Compare against other options at a more detailed level
- Implement most favourable/acceptable option



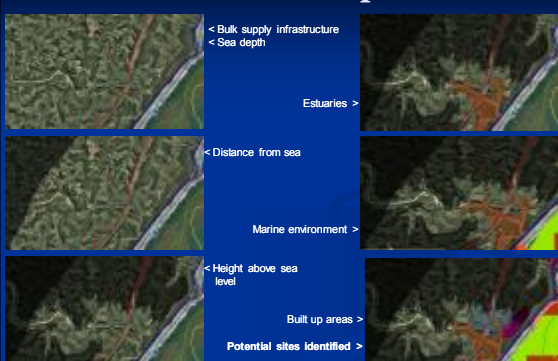
Progress to date

- Workshop held with Australian experts in February 2010 to better understand the requirements for a large seawater desalination plant
- Rethink on method proposed in Pre-Feasibility Study to feed water into the supply network → Review of the site selected & the linkage to the bulk supply network
- Collection of suitable data to inform the site selection process
- Initial screening of identified sites done in-house in July 2010
- Workshops in July/August 2010 of potential sites with:
 - eThekweni Water & Sanitation
 - eThekweni Coastal Management
 - eThekweni Environmental
 - eThekweni Spatial Planning
 - Environmental Estuary Consultant
- Individual meetings in July/August 2010 with:
 - Transnet
 - Marine Consultants

Discussion

- Decision to split linkages to bulk supply network
 - Southern linkage into the southern eThekweni/northern Ugu region
 - Northern linkage into the northern eThekweni region
- Decision to reduce SWRO plant size to match existing/planned bulk infrastructure capacities → each plant ~ 150 Ml/day maximum
- Study area = Scottburgh to Tongaat
- 6 southern sites initially identified → 3 sites still in contention
- 5 northern sites initially identified → 3 sites still in contention

Site identification process



< Bulk supply infrastructure
< Sea depth

Estuaries >

< Distance from sea

Marine environment >

< Height above sea level

Built up areas >

Potential sites identified >

Way forward

- Complete the site selection process
 - One southern site
 - One northern site
- Appointment of GHD (Australia) as advisors
- Compile Terms of Reference & appoint consultants to undertake:
 - Feasibility study/preliminary design of inlet and outlet works
 - Feasibility study/preliminary design of linkage to bulk supply network
 - Environmental assessments
 - Desalination plant costs and contractual requirements
- Feasibility level costing and economic analysis
- Decision on way forward