


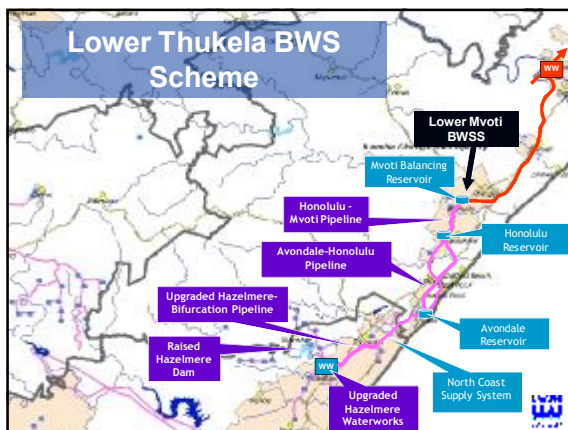
LOWER THUKELA BULK WATER SUPPLY SCHEME FEASIBILITY STUDY



2 September 2010



Strategy Steering Committee Meeting 1

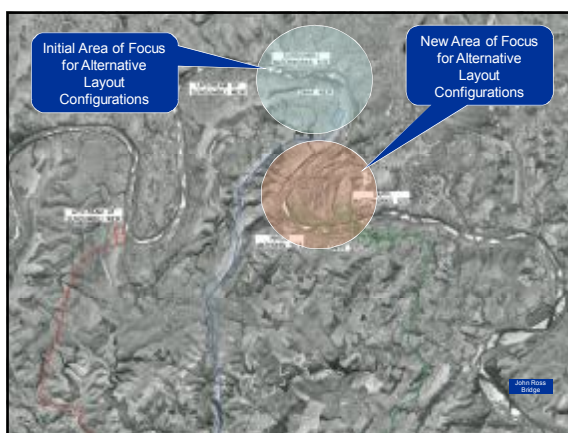


Progress to date

- Workshop between DWA and UW to confirm available water in the Thukela River (December 2008)
- Technical Consultant appointed to undertake a detailed feasibility study/preliminary design (June 2009)
- Review of future water demand requirements completed

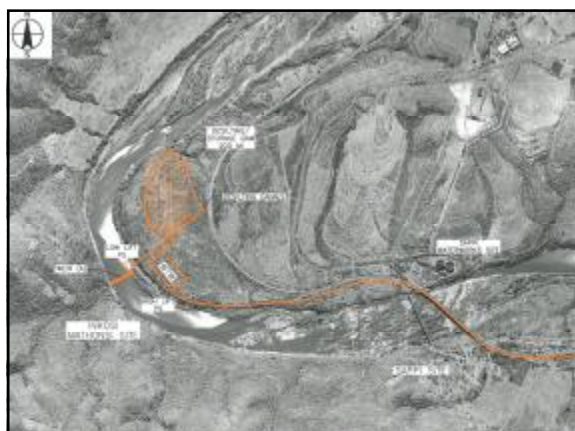
Site Selection & River Abstraction

- Site visit with Professor Gerrit Basson to determine the most likely abstraction points on the river (October 2009)
- Construction of a physical model at Stellenbosch University to confirm abstraction options
- Preliminary runs undertaken with the physical model proves site unsuitable (March 2010)
- Additional site visits to confirm alternative abstraction points based on model predictions
- Modifications to the Physical Model and model testing undertaken in (May 2010)
- Detailed model of abstraction works constructed (August 2010)

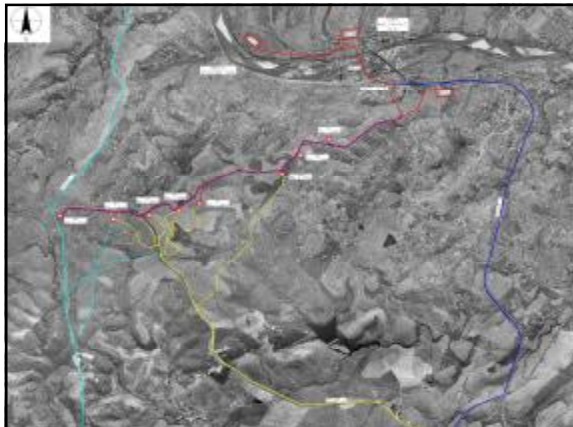




- ### Water Treatment Options
- Analysis of sediment composition and flood magnitudes and frequencies
 - Site for Water Treatment Plant completed
 - Comprehensive options analysis of various sediment removal options including supply to off-channel storage and primary or secondary pre treatment
 - Draft report on the Preliminary Design of the Water Treatment Plant completed (August 2010)
 - First draft of the Preliminary Dam Design Report for the storage/siltation dam completed (July 2010)



- ### Infrastructure
- Preliminary route determination to supply demands north of the Thukela and to link into the NCSS
 - Discussions with affected landowners
 - First draft report of Preliminary Design of Pipeline and Pump Station completed (April 2010)
 - Await the finalisation of the position and configuration of the abstraction works prior to the finalisation of the geotechnical report. Original scope of geotechnical investigations is complete and the report is in the process of being finalised
 - LIDAR survey is 90% complete
 - Report on the Cathodic Protection Survey to be completed by end September 2010
 - Co-ordination with Iembe DM on off-takes



Environmental Authorisation

- EIA Consultant appointed September 2009
- EIA registered in February 2010
- Ecological assessment completed July 2010
- Heritage assessment completed April 2010
- Aquatic Impact assessment completed March 2010. Study to be extended to include the Estuarine Assessment Study
- Wetland/Riparian Delineation Study completed April 2010. Study to be extended to include the Wetland/Delineation Functional Assessment
- Social Impact Assessment - ongoing and will be completed once all the public participation meetings have been taken into consideration
 - Consultation with Ingonyama Trust Board March 2010
 - Consultation with landowners April 2010
 - Consultation with tribal leaders and councilors April 2010
 - Public participation May / June 2010
- Scoping report submitted to public for comment July 2010



Discussion

- Anticipated high cost of proposed abstraction works
- Alternative abstraction configurations options:
 - a no-weir option (i.e. SAPPI abstraction)
 - possibly a lower weir to divert low flows to the pump station, but without the flushing canals,
 - an abstraction works that includes a hopper
 - the abstraction as modelled by Professor Gerrit Basson
- Determine cost of each option
- Assess the impact of each layout on the operation of the scheme, i.e. the likely downtime during floods or periods of low flow and any risk of failure
- Determine the consequences of each of the abovementioned options on the downstream desilting works

Way forward

- Finalise abstraction site selection (end September 2010)
- Finalise configuration of the abstraction works (end September 2010)
- Complete technical reports (October/November 2010)
- Appoint Design Consultant (January 2011)
- Submit Environmental Scoping Report (September 2010)
- Complete outstanding environmental assessments
- Submit Environmental Impact Assessment
- Co-ordination on off-take design and construction
- Construction to commence (late 2011)
- Commissioning 2014/15?