

DEVELOPMENT OF A RECONCILIATION STRATEGY FOR THE OLIFANTS RIVER WATER SUPPLY SYSTEM

Work done up to the end of February 2011

1. GENERAL

During the course of 2010 we were requested to perform the following two additional tasks which were not specified in the terms of reference nor described in the Inception Report:

- Prepare the write-ups for the DWA website for the ORS study.
- Do an assessment of the yields of the De Hoop and Flag Boshielo Dams.

On 6 December 2010 after the Preliminary Reconciliation Strategy had been presented to the stakeholders, we were requested to study certain aspects in more depth and to do further work that was not specified in the terms of reference, nor described in the Inception Report. We were also requested to suggest tasks/activities that could be relinquished in order to end up with the same original approved budget. A contract variation order had to be avoided if this was at all possible.

The additional focuses/tasks were the following:

- The Reserve quantum (Ecological component) must be investigated further.
- A best estimate on the unlawful water use is needed.
- High and low water requirement scenarios must be well reasoned, and requirement information must be obtained from the mines.
- More confidence is needed on the estimated quantity of water that can be save through WC/DM.
- The additional yield that will become available by utilising the abandoned coal mines must be quantified.
- Massingir Dam in Moçambique must be included in the yield model for the different scenarios.
- The CMA establishment should be a recommendation in the final strategy.
- The dam options in the Olifants River Gorge should be linked to the Reserve if an additional dam on the system appears to be inevitable.

In view of the above, the PSP team met on 13 January 2011 and all outstanding activities and deliverables as well as the additional tasks were carefully considered. A new budget was compiled for the project.

Three options have been submitted to DWA, i.e.:

- (a) Almost full package but certain tasks slightly scaled down. One of the two public meetings replaced with a newsletter. This would require a VO. of R 211 158.
- (b) Same as (a) but SMT meetings reduced to four for the remaining part of the study. This would also require a VO of R 109 256.
- (c) Same as (b) but the second public meeting also replaced with a newsletter. No VO will be required for this option.

A decision from DWA on which option to follow is currently being awaited.

2. PROGRESS SO FAR

PHASE 1:

2.1 Study Planning and Process Initiation

The initial planning and process initiation is complete and the Inception report was approved and signed off.

PHASE 2:

2.2 Task 1: Summary of Current and Previous studies

Completed. Report still needs to be signed off.

2.3 Task 2 : Preliminary Screening Workshop and Reconnaissance Study Tour

Completed. Report still needs to be signed off.

2.4 Task 3: Current and Future Water Requirements and Return Flows

The yield assessment of De Hoop and Flag Boshielo Dams is complete and the report has been signed off.

The Water Requirements and Water Availability Report has been completed and is currently being reviewed internally within the consortium after which it will be submitted to the client for client acceptance review.

The additional tasks on water requirements as described in paragraph 1 have been included in this report.

Expected delivery date will be end of March.

2.5 Task 4: Water Conservation and Demand Management

A first draft report has been completed and is currently being reviewed internally within the consortium before it is submitted to the client for client acceptance review.

More work is however required on the estimation of leakage of the main supply canals and confirmation needs to be obtained that this leakage is lost for the system. Submission to the client is expected by end April 2011.

2.6 Task 5: Opportunities for Water Re-Use

A first draft report has been completed and peer reviewed for the first time. The second peer review still needs to be done. Submission to the client is expected by end March 2011.

2.7 Task 6: Invasive Alien Plants

This task is complete and the report has been peer reviewed by Mr Dirk Versfeld. Final review by study leader is outstanding. Will be submitted to client for client acceptance review in March 2011.

2.8 Task 8: Water Quality

The task was kept on hold, pending the outcome of discussions with the DWA scheduled for 2 February 2011. Good progress has been made and the draft report will be ready for peer review within the next month.

2.9 Task 9: Reserve Requirement Scenarios and Scheme Yields

Three modelling scenarios have been completed. These are:

- Present day situation. Evaluate to what extent the reserve is not met. Output from this scenario is flow duration curves at Reserve sites which will be evaluated by the ecologists.
- Re-evaluation of the yield of all dams if the Reserve, as signed off, is fully met.
- Re-evaluation of the yield of all dams if the Reserve is met with the revised classes.

Reporting on these scenarios is in progress.

2.10 Task 10: Groundwater

The Groundwater Report is being drafted. Expected delivery date for peer review is end March 2011. Delivery target date for submission to client is end April 2011.

2.11 Task 11: Review Schemes and Update Cost Estimates

A proposal for costing a transfer from the Crocodile System is being prepared. The report on possible scheme options and their cost estimates is in progress.

2.12 Task 12 : Review or Assess Social and Environmental Impacts

No work done so far. This task is dependent of Tasks 4, 5, 6, 8, 10 and 11.

2.13 Task 13 : Assembly of Information and Formulation of Scenarios

The draft Preliminary Strategy Report was finalised and submitted to the client for acceptance review.

2.14 Task 14: Final Screening Workshop

This workshop is only scheduled towards the end of the study.

2.15 Task 15: Public Participation

The DWA website was provided.

The 1st Newsletter had been completed and was distributed to the Stakeholders and placed on the website.

The 2nd Newsletter (which will replace the public participation meeting which was scheduled for 23 February 2011) will be drafted within the month of March 2011.

2.16 Task 16: Project Management

- The Minutes of the SMT Meeting which was held on 6 October 2010 were distributed.
- A Team Meeting was held on 14 January 2011, and its minutes were prepared.
- The SMT Meeting on 2 March 2011 was arranged.
- A letter for rate increases was submitted.
- A letter for the appointment of Prof. Denis Hughes was submitted.
- The revised budget and tasks to be replaced with the additional request had been planned and a letter in this regard was prepared and submitted to the client.

3. SUMMARY OF REPORTS DUE

The outstanding reports and responsible authors are summarised in Table 1 as well as the expected submission dates responsibilities for quality reviews.

Table 1: Reports Outstanding and Target Dates for Submission

REPORT	MAIN AUTHOR	EXPECTED DATE OF SUBMISSION	QUALITY REVIEWS		COMMENTS
			1	2	
Water Requirements and Water Supply Report	S Mallory	28 March 11	J Beumer	M v Veelen	Report needs updating – additional requirements of DWA.
Water Conservation and Demand Management Report	S Mallory	30 April 11	G English	J Beumer	More information needed on canal losses.
Water Reuse Report	S Braid / L Ngomane	31 March 11	J Beumer	S Vogel	Second review outstanding.
Invasive Alien Plants Report	S Mallory	31 March 11	D Versfeld	J Beumer	Verification needed on the survey of the ARC of existing IAPS.
Water Quality Report	M v Veelen	Mid April 11	S Braid	J Beumer	
Reserve Scenarios and Scheme Yields Report	M v Veelen / D Louw	31 May 11	S Mallory	J Beumer	Dependent on additional work by Denis Huges which can only be done in April. Additional work by DWA required.
Groundwater Report	M Levin	31 March 11	D Timm	M v Veelen	Artificial Recharge Option to be investigated.
Environmental and Social Impacts Report	T Baker	30 June 11	M v Veelen	J Beumer	
Intervention Options Feasibility Report	D Timm	End May 11	D Versfeld	S Vogel	Needs further work, e.g. water transfer from Crocodile.
Final Reconciliation Strategy	J Beumer	End Sept 11	M Killick	D Versfeld	End date critical for timeous completion of study.



J. Beumer
Study Leader

28-2-2011

Date