



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

aurecon

MINUTES OF MEETING

Second Algoa Reconciliation Strategy Steering Committee Meeting

Held on 28 March 2012
At the offices of Aurecon, Port Elizabeth

Item		Action
1.	WELCOME The chairman, Mr Peter van Niekerk welcomed everybody to the meeting	
2.	ATTENDANCE AND APOLOGIES Attendance Mr Peter van Niekerk DWA: CD UWRP Mr Johan van Rooyen DWA: NWRP Ms Isa Thompson DWA: NWRP (S) Mr Archinton Thobejane DWA: NWRP (S) Mr Paul Herbst DWA: WUE Mr Dewald Coetzee DWA: NWRI: Southern Operations Mr Barry Martin NMBM Mr Stan Groenewald NMBM Ms Amsha Muthayan NMBM Mr Pierre Joubert Gamtoos IB Ms Rienette Colesky Gamtoos IB Mr Kowie Joubert Prov Dept Agriculture and Land Affairs Ms Annalie Marais Prov Dept Agriculture and Land Affairs Mr Jeff Govender Dept Econ Dev and Env Affairs & Tourism Mr Harms du Plessis Lower Sundays IB Mr Willie Olivier Coega IDZ Mr Graham Taylor Coega IDZ Mr Nick Chapman Nelson Mandela Bay Business Chamber Mr Dup van Reenen AfriCoast Engineers SA Mr Erik van der Berg Aurecon Ms Reina Zastron Aurecon Dr Ricky Murray Groundwater Africa Apologies Mr Mbulelo Sogoni Director General, Premier's Office Mr Vuyu Madini EC Prov Dept of Local Govt & Traditional Affairs Mr Piet Snyman Cacadu DM Mr Ashley Starkey DWA: Act CD: ECR Dr Beason Mwaka DWA: WRPS Ms Bolekwa Kama DWA: CMA Manager	PvN JvR IT AT PH DC BM SG AM PJ RC KJ AM JG HdP WO GT NC DvR EvdB RZ RM

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	Mr Galelo Mbambisa DWA: Water Sector Support Mr Andrew Lucas DWA: Water Quality Management Mr K Nkantsu SALGA Eastern Cape Mr Z Mpulampula SALGA Eastern Cape Mr Bogumsa Panda EC Prov Dept of Human Settlement Mr Angus Clark Nelson Mandela Bay Business Chamber	
3.	APPROVAL OF AGENDA The agenda was approved as is. No points were added under Agenda point 20 – General.	
4.	APPROVAL OF PREVIOUS MINUTES The previous minutes was accepted with the following changes: 5.4.1.5 on p6 re Darlington Dam: 'This could potentially involve the removal of gates...' to be replaced by 'This could potentially involve the removal of gates and the reconstruction of the spillway...'. 4.2 8.3 on p10 re water availability assessment: 'PJ indicated that the Gamtoos area is in the same position' to be replaced by ' PJ indicated that the catchment area of the Kouga Dam is in the same position'.	
5.	MATTERS ARISING FROM PREVIOUS MINUTES On previous agenda under 5.5.2. Representatives: 5.1 RZ indicated that a representative from NAFCOC as well as a councillor from the Metro was invited to this meeting. 5.2 The point 'Invitation to Langkloof WUA' under 8.3 in the previous minutes will not be part of the agenda as the WUA has not been established as yet, but the point must remain on the agenda.	
6.	ADMINISTRATIVE AND TECHNICAL SUPPORT GROUP IT reported that an ATSG meeting was held on 15 March 2012. Actions identified at the Steering Committee meeting were put on the ATSG agenda and addressed by this group. The actions will be discussed under the relevant agenda points	
7.	RELEVANT PROJECTS & INITIATIVES UNDERTAKEN BY OTHER RESPONSIBLE ENTITIES 7.1 Annual Operating rules DC reported the following: The model for the operating rules was run and the decisions regarding water allocations/restrictions for the period Jul 2012-June 2013 will be taken at a meeting on 1 June 2012. He expects that there could be restrictions for the period, considering current storage levels. JvR proposed using dam levels of 30 April for the next run, enabling earlier meetings and decisions as this could require lengthy discussions. 7.2 Drought operating rules for stand-alone dams It was noted that the Groendal Dam is currently at full capacity. This point will be removed from the agenda in future. 7.3 Establishment of upper Kouga/Kromme Irrigators WUA SB reported that this project is under way. The idea was that a group would be formed that could act as a spokesperson for all irrigators. The situation is however that many irrigators don't want to amalgamate. It is possible that three groups will be	

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<p>7.4</p> <p>Verification and validation of water use study of a part of the Langkloof area</p> <p>This project is the responsibility of the DWA regional office. Following an invitation for tenders, three tenders were received and the tender should be awarded by the end of March. The contract should start within the next 2 months. It will be a 20-month contract, but only covers the upper portion (four quaternary areas) of the upper Kouga River catchment area. Funding of this study remains a problem as R18 million would be needed for the study of the full Langkloof area. As this study is now a ministerial priority, funds could be made available and other appointments could be made for the rest of the area. PJ proposed that it rather be called the 'Kromme and Kouga catchment areas' than the Langkloof to prevent confusion.</p> <p>7.5</p> <p>Algoa Bridging Study</p> <p>The Algoa Bridging study was completed and findings were incorporated in subsequent studies. The final report is not yet available. The members will be informed as soon as it becomes available.</p> <p>7.6</p> <p>Coega IDZ: Power supply overview</p> <p>Coega IDZ currently experiences energy constraints, which complicates the situation in terms of attracting new investors. There is currently no guarantee of supply. Manalec, the energy service provider, would have made a presentation on the energy situation, but they have unfortunately cancelled. This presentation is still planned for the next meeting.</p>	<p>established. This will receive attention in the next DWA financial year (Apr '12 - March '13)</p> <p>Verification and validation of water use study of a part of the Langkloof area</p> <p>This project is the responsibility of the DWA regional office. Following an invitation for tenders, three tenders were received and the tender should be awarded by the end of March. The contract should start within the next 2 months. It will be a 20-month contract, but only covers the upper portion (four quaternary areas) of the upper Kouga River catchment area. Funding of this study remains a problem as R18 million would be needed for the study of the full Langkloof area. As this study is now a ministerial priority, funds could be made available and other appointments could be made for the rest of the area. PJ proposed that it rather be called the 'Kromme and Kouga catchment areas' than the Langkloof to prevent confusion.</p> <p>Algoa Bridging Study</p> <p>The Algoa Bridging study was completed and findings were incorporated in subsequent studies. The final report is not yet available. The members will be informed as soon as it becomes available.</p> <p>Coega IDZ: Power supply overview</p> <p>Coega IDZ currently experiences energy constraints, which complicates the situation in terms of attracting new investors. There is currently no guarantee of supply. Manalec, the energy service provider, would have made a presentation on the energy situation, but they have unfortunately cancelled. This presentation is still planned for the next meeting.</p>	<p>SB</p> <p>MM/IT</p> <p>Manalec</p>
<p>8.</p> <p>8.1</p>	<p>WATER REQUIREMENTS AND USE</p> <p>Coega IDZ water requirements</p> <p>AfriCoast has investigated the provision of industrial water to the Coega IDZ. DvR is currently updating the NMBM Water Master Plan that addresses water supply to Coega. The recommendation in the water plan is to use potable water for industrial use for 2 years as a bridging mechanism, as no industrial quality water will be available in time for use. According to the EIA issued for large Coega industries, no potable water may be used, and if no industrial water is available, it poses serious challenges to the development of the Coega IDZ. A meeting with the Eastern Cape Department of Environmental Affairs to discuss the matter was set up for the end of April.</p> <p>On a question from JG, WO replied that investors are not currently charged extra for bulk infrastructure provision. He indicated that Coega IDZ would lose its investors if this was put in place. IT asked WO for a list of short and medium term investors to be used as motivation to DWA top management to get support for funding of the water infrastructure.</p> <p>DvR and IT asked for the latest Coega IDZ growth in water requirement scenarios. WO will provide this during the week following the Easter weekend.</p>	<p>RZ</p> <p>WO</p> <p>WO</p>
<p>9.</p> <p>9.1</p>	<p>IMPROVING THE CONFIDENCE OF WATER AVAILABILITY</p> <p>Proposed water availability assessment study - Kromme/Kouga</p> <p>IT said that PSPs for the water availability assessment study (WAAS) would be appointed by the end of 2012/13. The information that will be gathered under the Verification and Validation of Water Use Study of the Upper Kouga catchment (point 7.4) is of utmost importance to the study and will be incorporated as it becomes available. Satellite imaging is available from the Algoa Bridging Study. The study reports and information must be obtained to be used for the WAAS. The Integrated Hydrological Planning Subdirectorate is busy with a groundwater feasibility study in</p>	<p>IT</p>

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	<p>the Baviaans Local Municipality. One component of the study is to investigate the possibility to use water from the Beervlei Dam (that is situated in the Groot River) when there is water in the dam to artificially recharge an aquifer along the Groot River from which water can then be abstracted when required to supply water to Willowmore and Steytlerville. A hydrological analysis of the Groot River and Beervlei Dam is being done to improve the WR2005 information and to obtain the required information for the artificial recharge analysis. The Groot River is one of the two main tributaries of the Gamtoos River. The data will also help with the WAAS of the Kouga River.</p>	
<p>10.</p> <p>10.1</p> <p>10.2</p>	<p>OPERATIONAL EFFICIENCY</p> <p>Darlington Dam Operating Capacity and Dam Safety Rehabilitation Programme</p> <p>DC reported that design consultants have been appointed. The levels of operation still need to be evaluated. On EvdB's question, DC indicated that the risk of changed yields is minimal. A water quality study has not been planned for. PvN stated that this is a complex study and the meeting recommended that Dr Beason Mwaka should evaluate the situation and report back at the next meeting.</p> <p>Additional balancing storage in the LSRGWS</p> <p>In addition to increasing the balancing capacity of the Scheepersvlakte Balancing Dam, attention must also be given to increasing the supply capacity of the Lower Sundays River Government Water Scheme. It is important that an operating risk assessment be done urgently. JvR said that the need and sizes have to be determined first. This could extend the request regarding the Darlington Dam project. A meeting should be arranged between Dr Beason Mwaka, other responsible DWA staff and NMBM. Increased storage at the Scheepersvlakte Balancing Dam (likely entailing an additional balancing storage facility) and a raised Korhaansdrift Weir could also be considered to increase balancing storage.</p>	<p>BeM</p> <p>RZ/BeM/ MM</p>
<p>11.</p> <p>11.1</p>	<p>WC/WDM</p> <p>NMBM</p> <p>BM and SG will attend a meeting with National Treasury regarding funding after leaving the SSC meeting, as funding of bulk water infrastructure remains a critical issue.</p> <p>SG indicated that according to the annual audit, the year on year real losses has dropped from 26.3% to 23%. This relates to a saving of 13 Ml/day, bringing about a saving of R45.5 million annually. The saving target of real losses is 37 Ml/day in 5 years. 33% has been realised in the first year, which is quite an achievement.</p> <p>Water losses at schools are still a significant problem as funds for repairs are not forthcoming. No money was received from the Department of Education since February 2011. Estimated savings of 10-15 Ml/day could be realised by repairing the leaks at schools in the Metro. AL reported that DWA is prepared to match any funds the Department of Education makes available for repairs at schools. NMBM has put out tenders for repairs at schools, and the tenders have been awarded. As soon as any funds become available, repairs will start.</p> <p>EvdB asked whether DWA could perhaps assist in facilitating discussions between the NMBM and the Department of Education. BM said that a MOU has been signed between the Department of Education and the NMBM. The NMBM assessed problems at the schools, divided the schools in 3 geographical areas, appointed contractors and did a presentation at the Provincial Water Forum. This means that everything has been done at a provincial level to try to secure money for repairs needed at these schools. BM indicated that it is important that this issue be raised nationally. The NMBM will be able to bring facts if such a meeting could be set up.</p> <p>PvN wanted to know what the next steps would be. BM indicated that they will raise it at the meeting with National Treasury. PH further suggested dealing through the</p>	<p>BM</p>

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11.2	<p>provincial DWA office. He will contact Ashley Starkey to discuss the matter.</p> <p>R50 million over 3 years is needed for repairs at schools. This will result in savings of R90 million over 3 years.</p> <p>Other Municipalities</p> <p>Due to other commitments, Mr Piet Snyman was unable to attend the meeting. DvR reported that according to the master plan, the year-on-year growth for the Kouga LM is 10.9%. The cause of this substantial increase needs to be investigated. On PJ's question, DvR indicated that he does not know what the losses of the system are.</p> <p>AfriCoast, under its assignment for the NMBM WMP review, investigated the water demand growths of the Kouga Municipality. The combined water demand growth from the NMBM Kromme River supply system was 10.2% per annum (2000/01 to 2009/10). The individual towns showed some water savings during the drought period, except for the St Francis area which showed a growth of 12.5% per annum (same period) and no water savings during the drought. This is not in line with the economic patterns of the same time and should be investigated as it will have a major impact on the NMBM supply if the same growth continues.</p> <p>BM mentioned that the NMBM has no authority regarding the Kouga LM's water usage and that the water service authority will have to investigate this themselves. This authority should be invited to the ATSG meetings. DC noted that the Kouga LM's abstractions were per allocation via the canal. The Committee recommended that Ms Bolekwa Kama of the DWA Regional Office report back on this matter.</p>	<p>PH/AS</p> <p>RZ</p> <p>BK</p>
12.1	<p>ORANGE RIVER INTER-BASIN TRANSFER SCHEME</p> <p>Nooitgedagt Low Level Scheme (NLLS) Implementation</p> <p>Phase 1 of the project incorporates the minimum contracts required to bring water from the Gariep Dam to NMBM. All seven contracts of Phase 1 have been awarded. Progress on the two pipeline contracts is a bit behind schedule, but should not be a problem. Construction of the pipelines should be completed by October 2012.</p> <p>These contracts are as follows:</p> <ul style="list-style-type: none"> • Extensions to Nooitgedagt WTW (Civil); • Olifantskop 10 Ml reservoir and Connecting Pipework; • Electrical Transformer for Nooitgedagt WTW; • Rising Main Pipeline to Olifantskop; • Gravity main Pipeline to Motherwell and Coega IDZ; • Motherwell and Bethelsdorp Booster PS (Mechanical and Electrical); • Motherwell and Bethelsdorp Booster PS (Civil). <p>R220 million has already been spent on the project. R450 million drought relief funds were received from National Treasury, but an additional R350 million is needed to complete all phases of the project. It would not be possible to utilise any water if the money necessary to complete the project is not raised. If funds are made available, the project will be finished by October 2013. The Metro is looking for grants as they are not allowed to apply for loans to raise money.</p> <p>The NMBM has made an application for the funding to National Treasury in July 2011. They are still awaiting their reply. In addition to the application, they will raise the matter at the 28 March meeting with National Treasury. Additional water from this scheme is crucial for development at the Coega IDZ.</p> <p>DC indicated that the current availability of water is based on the assumption that the NLLS scheme will be finished in time. If this is not the case, restrictions of use should be put in place. Unseasonal flood rains recently filled the dams. JvR</p>	

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12.2	<p>mentioned that the risks have to be mitigated. The fact that the pipelines might not be functional poses an excessive risk to the area. A short report needs to be prepared on the risks and sent to IT to inform the DWA Top Management.</p> <p>SG noted that the AWSS dams are already down to 88% and that a first round of restrictions starts at 60%.</p> <p>Options to replace Orange River water in the longer term</p> <p>These options include:</p> <ul style="list-style-type: none"> • Desalination of Sundays irrigation return flows • Purchase of Orange River water irrigation allocations. <p>These were identified as long-term planning initiatives, but the NMBM was urged to start investigating this option to safeguard their investment in the NLLS, as the sugarbeet-to-biofuels project in Cradock is buying up land with water allocations along the Fish River at a fast rate. No further discussion took place.</p>	DvR/ EvdB/IT
13. 13.1 13.2 13.3	<p>RE-USE OF WATER</p> <p>NMBM Water Master Plan update</p> <p>Re-use of water will be addressed in the NMBM Water Master Plan. The Master Plan is currently in draft format and should be finalised by end April 2012.</p> <p>Re-use of Water treated to Industrial Standards</p> <p>DvR is evaluating flows on the Lower Sundays River. He is awaiting further information from DWA.</p> <p>Re-use of Water Treated to Potable Standards</p> <p>Following the feasibility study on re-use of water, the upgrading of the Fish Water Flats WWTW has been delayed due to NMBM's funding constraints, which is also dependent on the re-use scheme/s being implemented. Funding of R600 million is needed to implement this project. Environmental consultants as well as design consultants have been appointed.</p> <p>The potential Loerie Indirect Potable Re-use Scheme was conceptualised during the planning of the implementation of the Fish Water Flats to Coega IDZ industrial water scheme, for potential potable indirect water re-use. Such a scheme could be mutually exclusive with additional water from the Kouga River.</p> <p>WO pointed out that 50-60 Ml/day is needed to fill reservoirs for use by CDC. Completion of the NLLS is thus crucial for Coega. JvR mentioned that the NLLS was supposed to fill the reservoirs with potable water, until such time that return effluent from the Fishwater Flats becomes available.</p>	DvR DWA EC RO
14. 14.1	<p>GROUNDWATER</p> <p>Presentation: NMBM Groundwater Study</p> <p>RM presented the work done under the Emergency Drought Relief Project and key outstanding items. The assignment involves a hydro-census, test pumping of existing boreholes, groundwater exploration (to identify drilling targets) and the appointment of a drilling contractor. Prior to this meeting, a separate groundwater meeting was held which was attended by BM and SG (NMBM), JB (Jane Baron, DWA), RZ, MvJ and SN (Aurecon); and RM (GWA).</p> <p>Groundwater exploration was done in the following areas:</p> <p>i. The Coega Fault System</p> <ul style="list-style-type: none"> • The Coega Kop Area; • The Coega Coastal Area (Coast to Markman township); • The Coega Kop (incl. the Motherwell area); • The Uitenhage Area; • The Amanzi-Coega Ridge Area (east of Uitenhage); and 	

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	<ul style="list-style-type: none"> The Uitenhage Area (in and west of Uitenhage, incl. the Kamesh area). <p>ii. Faults in Port Elizabeth</p> <ul style="list-style-type: none"> Moregrove Fault; Chelsea and Noordhoek faults. <p>iii. The Churchill Dam area;</p> <p>iv. The Humansdorp area;</p> <p>v. The Maitland Mines area (Van Stadens River Mouth area);</p> <p>vi. The Gamtoos Valley;</p> <p>vii. The Driftsands area: Artificial recharge assessment using treated waste water.</p> <p>Areas were identified but not investigated. The way forward to complete the current investigation is:</p> <ul style="list-style-type: none"> Complete the borehole siting on the Coega Fault (all boreholes have been sited at Churchill Dam and Moregrove Fault); Complete reports on all areas (on work done to date); Secure funds for drilling and testing the Coega Fault System, Churchill Dam area and Moregrove Fault; Appoint a driller and a test pump contractor; Conduct EMPs; and Apply for water use licenses. <p>EvdB requested that once borehole sites have been finalised, groundwater costs should be established (URVs and cost per kl).</p>	RM
<p>15.</p> <p>15.1</p> <p>15.2</p>	<p>SEAWATER DESALINATION</p> <p>NMBM Desalination Scheme</p> <p>The Swartkops Desalination Plant designs have been put on ice. The NMBM plans to buy the land to be able to keep this option as an emergency scheme. This is however proving challenging, as the owner of the land expects to be paid an exorbitant amount. In the longer run a larger scheme to the western side of the metro would be needed. NMBM is busy securing funds for the investigation of such alternative sites.</p> <p>Seawater Desalination prospects at Coega IDZ</p> <p>WO reported that Petro SA has evaluated this option, but has discarded it as it would be very expensive. A desalination plant at Coega therefore seems very unlikely in the short to medium term. This could only resurface if no return effluent is available for Coega. Securing an energy supply for such a scheme would further be problematic for the foreseeable future.</p>	BM/ NMBM
16.	<p>KOUGA DAM REHABILITATION PROGRAMME AND FEASIBILITY OF FUTURE RAISING</p> <p>DWA has started an investigation and preliminary design on the rehabilitation of the dam. This should be finished by mid-2013. If the study confirms that significant construction would be needed for the rehabilitation, the dam could potentially also be raised at the same time. This will be determined by the investigations and modelling still to be undertaken. A hydrology update study also needs to be done to determine whether there would be any benefit in raising the dam wall. The bridging study indicated that the raising may not be an attractive option, but other factors also need to be taken into consideration. Funding also needs to be addressed.</p>	DWA
17.	<p>IMPACTS ON YIELDS OF EXISTING DAMS: ECOLOGICAL RESERVE & CLIMATE CHANGE</p> <p>IT indicated that the Operating Rules Study should take cognisance of the ecological Reserve. Although the Reserve requirements for AWSS dams and rivers are not currently being implemented, it should happen in future. JvR mentioned that</p>	

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	<p>it is uncertain who and when this could be implemented. He said that the team needs to understand the implications of such an implementation. He suggested that the team compile implementation scenarios after which a decision needs to be made. The team needs to submit a concise report on the matter to DWA before the next meeting.</p> <p>Climate change was not discussed.</p>	EvdB
18.	COMMUNICATION	
18.1	<p>Status Report</p> <p>(In future, this heading will be changed to the 'Status and Progress Reports'). The September 2011 Status Report was compiled, disseminated and presented. The next Status Report will be drafted after the September 2012 Steering Committee meeting, with the updated water use and requirements balances.</p> <p>After the current meeting, a short Progress Report will be drafted to be used to report back to DWA management. This progress report will also be disseminated to all members to inform their institutions.</p>	EvdB
18.2	<p>Media Release</p> <p>The media release following the previous SSC meeting was released on 2 December 2011. The next media release following the current meeting will be distributed for comments to the SSC team. DWA will get approval from head office after which it will be released. The team was further asked to disseminate the final approved version to all interested parties. The regional office should consider releasing it during an event to raise their profile.</p>	EvdB
19.	<p>UPDATED WATER USE/WATER BALANCE SCENARIOS</p> <p>The scenarios will be updated in September for the next SSC meeting.</p>	EvdB
20.	<p>GENERAL</p> <p>No discussion.</p>	
21.	<p>NEXT MEETING</p> <p>The next Strategy Steering Committee meeting will take place on 26 September 2012 @ 9h00 (venue to be confirmed, but provisionally at Aurecon's offices)</p>	
22.	<p>CLOSURE</p> <p>The meeting was adjourned at 13:00.</p>	