





Department: Water Affairs **REPUBLIC OF SOUTH AFRICA**

MINUTES OF MEETING

Algoa WSS Reconciliation Strategy Continuation: Study Steering Committee Meeting 7 held on 21 September 2016 @ 09h00 at the offices of Aurecon, Port Elizabeth

WELCOME The chairman, Mr Tendani ATTENDANCE AND APO Attendance Mr Tendani Nditwani Ms Isa Thompson Mr Martin Labuschagne Mr Stephen Mullineux	Nditwani, welcomed everybody to the meeting. LOGIES DWS: NWRP DWS: NWRP (S) DWS: WR&U-WUE	TN
ATTENDANCE AND APO Attendance Mr Tendani Nditwani Ms Isa Thompson Mr Martin Labuschagne	DWS: NWRP DWS: NWRP (S)	
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Mr Tendani Nditwani Ms Isa Thompson Mr Martin Labuschagne	DWS: NWRP (S)	
Ms Isa Thompson Mr Martin Labuschagne	DWS: NWRP (S)	
Mr Martin Labuschagne		ІТ
•	DWS: WR&U-WUE	
Mr Stephen Mullineux		ML
	DCE: Water Regulation & Use	SM
Mr Andrew Lucas	DWS: Water Regulation and Use	AL
Mr Barry Martin	NMBM	BM
Mr Paul du Plessis	NMBM	SG
Mr Harms du Plessis	Lower Sundays IB	HdP
Mr Pierre Joubert	Gamtoos IB	PJ
Ms Rienette Colesky	Gamtoos IB	RC
Mr Nick Chapman	Nelson Mandela Bay Business Chamber	NC
Mr Andreas Engelbrecht	GRFWUA	AE
Mr Dayalan Govender	DEDEA	DG
Mr Graham Taylor	Coega IDZ	GT
Mr Erik van der Berg	Aurecon	EvdB
Ms Reina Zastron	Aurecon	RZ
Apologies		
Ms Jenny Pashkin	DWS	JP
Ms Portia Makhanya	DWS:CD EC	PM
Ms Bolekwa Kama	DWS:CMA Manager	ВК
Mr Koos Viljoen	DWS	κv
Mr Paul Chilton	DWS: Proto CMA CE	PC
Mr Paul Herbst	DWS: WUE	PH
Ms Ilse Viljoen	DWS:EC	IV
Mr Tony Moore	DWS:CE OA	ТМ
Mr Dave Turner	NMBM	DT
Mr Joseph Tsatsire	NMBM	JT
Mr Robert Higgins	PetroSA	RH
Mr Dup van Reenen	AfriCoast Engineers SA	DvR
Mr Leon Joubert	DEAET	LJ
Mr Kowie Joubert	Dept Rural Development & Agriculture Reform	KJ
	Mr Barry Martin Mr Paul du Plessis Mr Harms du Plessis Mr Pierre Joubert Ms Rienette Colesky Mr Nick Chapman Mr Andreas Engelbrecht Mr Dayalan Govender Mr Graham Taylor Mr Erik van der Berg Ms Reina Zastron Apologies Ms Jenny Pashkin Ms Portia Makhanya Ms Bolekwa Kama Mr Koos Viljoen Mr Paul Chilton Mr Paul Herbst Ms Ilse Viljoen Mr Tony Moore Mr Dave Turner Mr Joseph Tsatsire Mr Robert Higgins Mr Dup van Reenen Mr Leon Joubert	MrBarry MartinNMBMMr Paul du PlessisNMBMMr Harms du PlessisLower Sundays IBMr Pierre JoubertGamtoos IBMs Rienette ColeskyGamtoos IBMr Nick ChapmanNelson Mandela Bay Business ChamberMr Andreas EngelbrechtGRFWUAMr Dayalan GovenderDEDEAMr Graham TaylorCoega IDZMr Erik van der BergAureconMs Reina ZastronAureconApologiesMs Soft ManagerMr Koos ViljoenDWSMr Paul ChiltonDWS: Proto CMA CEMr Paul HerbstDWS: WUEMs Ilse ViljoenDWS: CE OAMr Tony MooreDWS:CE OAMr Tony MooreDWS:CE OAMr Tony MooreDWS:CE OAMr Dave TurnerNMBMMr Dave TurnerNMBMMr Duy van ReenenAfriCoast Engineers SAMr Leon JoubertDEAET

ltem		Action
	AL said that it will be beneficial if local municipalities can attend the Algoa Reconciliation Strategy meetings. TN asked EvdB to send a letter to the LMs of the local municipalities to invite them to the meetings. AL suggested to include the mayors of the local municipalities in the communication.	Aurecon
3.	APPROVAL OF AGENDA	
	The agenda was approved.	
4.	APPROVAL OF PREVIOUS MINUTES	
4.1	No minutes to be approved as this was the first meeting of the continuation on the reconciliation strategy.	
5.	MATTERS ARISING FROM PREVIOUS MINUTES	
	No previous minutes.	
6.	RELEVANT PROJECTS & INITIATIVES UNDERTAKEN BY OTHER RESPONSIBLE ENTITIES	
6.1	AWSS Annual Operating Rules – System Monitoring Report	
	IT reported that a long meeting took place on 20 September on this matter. The special meeting on restrictions was held towards the end of June. Restrictions were approved by the NMBM on 31 August 2016. The reason for the restrictions is not a drought but because the Nooitgedagt Low Level Scheme is not yet complete. A restriction of 15% on domestic use has been gazetted in March 2015 and again in April 2016. Farmers are requested to restrict their use as far as possible.	
	HdP said that the farmers cannot be restricted more, but IT replied that the message should be that we have to work together to manage our water sources.	
	AE reported that no notice of restrictions has been provided to users in the Chris Hani District Municipality.	
6.2	Orange River Annual Operating Rules	
	No discussion as JP did not attend the meeting. After the meeting, the following information was received from JP:	
	The total transfer from the Gariep Dam through the Orange/Fish tunnel during August 2016 was 57 million m ³ . The cumulative transfer through the Orange/Fish tunnel at the end of August 2016 was 46.7 million m ³ more than the cumulative restricted target with no loss. Although fluctuations are possible and acceptable between the actual monthly transfers and the set targets, it is important that the total annual restricted volume of 539.2 million m ³ is not exceeded.	
	Cumulative transfers through the Orange/Fish tunnel to the Eastern Cape for the 2015/2016 monitoring year were approximately 160 million m ³ in excess of the target, which is even above the controversial target with 25% losses. This is unacceptable and should be avoided in the 2016/2017 operating year to minimise impacts on future supply assurance.	
6.3	Establishment of upper Kouga/Kromme WUA and establishment of the CMA	
	IT reported that no progress has been made since Ms Blie has retired from DWS. Nobody has taken over this project as yet. IT will follow up on the issue.	ІТ

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6.4	Verification and validation of water use	
	The validation for the Langkloof area is complete but the verification has not yet been done. This will be done under the V&V project that has been awarded for the whole of the Eastern Cape.	
6.5	Working for Water and Working for Wetlands	
	PJ of GIB reported that in the Kouga catchment, 24 000 ha has been cleared from alien vegetation. Some follow-up clearing has been done since, but the responsibility to keep the areas cleared, after the area has been done, resides with the land owners. High-altitude work (requiring a helicopter to transport the staff) totals 140 000 ha, mostly in the Kouga catchment. In the Kromme catchment, 28 000 ha have been cleared. This excludes the high-altitude work which has been done by helicopter. Minimal work is done in the Diep River area, downstream of the Churchill Dam, as no funds are available for this area. The focus could only change to this area after work in the Kromme catchment has been completed, and this won't be finished in the foreseeable future. The project is following a top-down approach, which means that the vegetation is getting denser, when working in the lower-altitude areas. The top-down approach is also necessary to prohibit the invasive alien plants at the higher areas to feed seeds to the lower parts. PJ indicated that many more years of clearing remains in the Kouga catchment. Adequate funding for these projects stays a challenge.	
	PJ reported that, for rehabilitation of wetlands, R30 million has been spent on building weirs and the maintenance of weirs.	
	The Land User Incentive (LUI) initiatives were launched by National Working for Water to reduce clearing costs and to ensure buy-in from land owners. GIB piloted this in the Kromme, Kouga and Tsitsikamma project areas during the last three/four financial years. Land owners who are interested to be part of the LUI initiative, submit proposals to the GIB, and such proposals are then considered, based on certain criteria which include, but are not restricted to the following:	
	 Whether funding is available (all resources are committed for the current financial year ending March 2017). The contribution by the land owner (the idea is to bring costs down, so the land owner need to co-finance the clearing operation. This may be by providing equipment, transport, housing, etc. to the contractor, or a cash payment for these costs to the contractor). Where the property is located. It must be within the current operational areas, which include the Kouga, Kromme (excluding the Diep River), Tsitsikamma and Baviaanskloof catchments. 	
6.6	WRC study by Living Lands IT reported that a study to develop an integrated hydrological and catchment management model has recently started. The launch meeting for the study will take place in Cape Town in the last week of September. IT will attend the launch and will report back at the next meeting.	IT
6.7	Water Quality Strategy PV did not attend the meeting and therefore could not report on the matter. AL said that the different sources have different water qualities. The NMBM tries to blend the water to get an adequate quality of water. They also have to be mindful of pollution of rivers by small municipalities.	
	PJ reported that the Gamtoos Irrigation Farmers are unhappy with DWS for not ensuring that the municipalities treat their sewage. AL replied that the Proto-CMA in Port Elizabeth is aware of this and is dealing with the issue.	
	ML reported that the pump stations at Addo LM are not working. A proposal was	

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	made that the private sector should work with the municipality to solve this, as funding is a problem for the municipality. The operation and maintenance of their infrastructure is also a challenge due to a lack of experience.	
6.8	Additional storage for Kirkwood	
	HdP reported that there are many significant leaks in the town's old infrastructure and that it is a battle to get water through the purification plant. EvdB noted that the feasibility component of this study will also assess the situation and make recommendations.	
	It was mentioned that an RBIG study was done to find the best solution to overcome the water shortages in Kirkwood during the dry period when SRIB do maintenance on the canals. Several options such as increasing the raw water storage dams, groundwater development and others were considered. The recommended option was to lay a pipeline from Korhaansdrift Weir to Kirkwood. Concern was expressed about this recommendation, which was deemed not to be the best way forward, especially due to the possible high cost. No costing has been done yet. HdP noted that a good site for providing storage was available. Improving their WC/WDM and providing storage seems like better options.	
7.	OPERATIONAL EFFICIENCY	
7.1	Darlington Dam operating capacity and Dam Safety Rehabilitation Programme As PB was not present, IT reported that KV indicated that the Darlington Dam rehabilitation project is going ahead.	
	IT reported that 14 projects have been identified where DWS infrastructure could possibly be used for Hydropower. TN indicated that the study team should get hold of the WRC report to determine whether it can be used for the Algoa study.	
7.2	Additional balancing storage in the LSRGWS A short overview was provided of the activities to be undertaken to evaluate additional balancing storage in the LSRGWS, as well as in the bulk water conveyance infrastructure.	
7.3	OFS Real-time model	
	No discussion.	
8.	WATER REQUIREMENTS AND USE	
8.1	NMBM Water Requirements	
	At the ATSG meeting in July 2016 it was reported that the final water use for the NMBM for June 2016 is 295.34 Ml/day. The total use of the NMBM for 2015/16 was 84.66 million m^3 , whereas the restricted allocation from the Algoa WSS was only 52 million m^3 .	
	BM did a presentation on the situation at the Metro. He provided NMBM statistics on the number of households, population, and access to water etc. A graph was shown of water demand compared to the yield of sources, up to 2025 (the presentation is available from Aurecon if required).	
8.2	Coega IDZ water requirements	
	GT reported that the information on the Coega IDZ water requirements in the draft Status Report is correct and the draft report is being circulated at Coega. Coega will formally respond to the information as stated in the Status Report.	Coega IDZ
	He also reported that PetroSA and an aluminium smelter will both have large water demands. The uncertainty around the availability of water is a challenge to new investors. He said that a new automotive bike investor will develop in Coega, but it will take around 18 months from confirmation of the project to when the project will go into production. He further indicated that the Status Report, with the various scenarios, is very valuable to Coega. Scenarios can be developed with specific	

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	investors in mind.	
	GT indicated that the availability of return effluent is not imperative at this stage.	
8.3	Kouga water requirements	
	No representative of the Kouga LM attended the meeting. EvdB indicated that he sourced information from the internet, but he will need to confirm whether this information is correct. The use is not significant, but is growing. AL mentioned that the demand will grow significantly if the Thyspunt development is going ahead and that the scheme will have to be managed in total. BM replied that if Thyspunt will be going ahead, a clever way needs to be developed to desalinate the seawater that will already be on the land and all factors should be taken into account. DG indicated that the building of 11 000 houses has been approved for this development. EvdB stated that cooperative governance is needed and that there will have to be discussions between the parties involved. He also indicated that the study team will source information on the planned nuclear reactor development to include in the Status Report.	Aurecon
8.4	WUE Fish and Sundays catchments	
	EvdB indicated that this component of the study has started. It will be determined whether water can be saved and re-allocated. A Situation Assessment Report has been drafted.	
9.	IMPROVING THE CONFIDENCE OF WATER AVAILABILITY	
9.1	Proposed Kromme and Kouga rivers water availability assessment study	
	IT said that this study is on the programme but it awaits the results of the V&V studies. She would like to get the study going in the current financial year.	
10.	WC/WDM	
10.1	Presentation by NMBM BM did a presentation on the WC/WDM situation at the Metro:	
	According to NMBM's 2014/15 Annual Report, non-revenue water is 44.7%, water losses is 38.4% and the value of losses is R148 million.	
	The DWS target set is to reduce water wastage by 37 Ml/d over 5 years. BM said that the focus of NMBM is to reduce real losses. They have 12 mainstreams in this regard:	
	 Bulk supply meters GMA & DMA bulk meters Discreteness of GMAs and DMAs Remote meter monitoring Non-revenue water (NRW) and the Billing Database Pressure reducing valves / pressure management areas ICI Consumers and meter faults Water tariffs Leak repairs: ATTP leak repairs School leak repairs Cluster repairs Repair and maintenance contractor Domestic meter audit and on-property leak repairs Valve and fire hydrant audit 	
	 BM concluded with the challenges the NMBM faces: No dedicated funding is available to drive the NRW project, although a start has been made in 2016/17. 	
	 Staff shortages An interface between the Billing System and the W&S Management System 	

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	 is needed Material shortages Billing information to be reconciled. 	
	IT noted that the NMBM is experiencing a huge increase in water requirements as the Metro is growing. The Metro has done a lot to improve water conservation and the reports must reflect all the interventions that have been done. She commended them on all the work that has been done in this regard. She stressed that the billing however needs to be sorted out to understand the real requirements and improve revenue collection.	
10.2	Report on progress of other municipalities	
	No discussion	
11.	ORANGE RIVER INTER-BASIN TRANSFER SCHEME	
11.1	Nooitgedagt Low-Level Scheme (NLLS) Implementation and Financing	
	BM reported that the Nooitgedagt Water Treatment Works was commissioned in 1992 with a treatment capacity of 70 Ml/day. The Works was constructed as an emergency drought intervention project during the drought experienced in 1989. Droughts also lead to the necessity of constructing the Nooitgedagt Low-Level Scheme (NCLLS). The full implementation cost of the NLLS was originally estimated at R800 million. The implementation of the NLLS was split into phases, to accommodate funding shortages at the time.	
	The Phase 1 emergency work, which was completed, consisted of 7 contracts with an implementation cost of R560 million. R450 million grant funding was received through an emergency drought funding application that was submitted to National Treasury and DWS. The 2 contracts of Phase 2 was awarded in December 2014, at an implementation cost of R120 million. This is being funded by NMBM and the planned completion date for Phase 2 is July 2017. The 4 contracts of Phase 3, to augment and complete the NLLS to a treatment and transfer capacity of 160MI/day, is estimated at R350 million. The Minister of DWS committed funds for the completion of Phase 3 through Amatola Water Board as implementing agent. Phase 3 tenders were advertised on 15 July 2016 and closed on 9 September 2016. The awarding of the contract is expected by end October 2016, with an estimated project completion date of December 2018.	
11.2	Desalination of Sundays River irrigation return flows	
	Apart from a desktop assessment and water quality sampling and analysis, no further detailed analysis of this alternative water resource scheme has been carried out. There is farming activities that can have an impact on the return flows and the Metro needs DWS to indicate how much water will be available for abstraction. IT stated the NMBM will need to do a study similar to the desalination study. DWS did the initial estimates during the development of the reconciliation strategy, but the NMBM will need to take it further. HdP stated that only 4 farmers are taking a small volume of water from the lower Sundays River and no further takings is envisaged.	
12.	RE-USE OF WATER	
12.1	Re-use of water treated to industrial standards and potable standards BM reported that the Coega Water Re-use Scheme is earmarked to supply the industries within the Coega IDZ with industrial quality water for process use. 60 MI of treated effluent will be supplied from the Fishwater Flats WWTW. An additional 50 MI/a will eventually be supplied from the new Coega WWTW. The first 15 MI water re-use reservoir is under construction at a value of R55 million and the total project cost for the Water Re-use Scheme is estimated at R600 million. The 15 MI reservoir will be completed within 6 months and will be filled with potable water in the interim. NMBM does not have the necessary funding to support implementation.	

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13.	GROUNDWATER	
13.1	Coegakop implementation	
	The investigation into the use of boreholes at Coegakop in support of water supply to the NMBM is ongoing. The Phase 1 exploration boreholes drilling contract in the Coegakop area has been completed at a cost of R25 million. Phase 2 of the contract, which involves drilling of production boreholes and construction of a WTW is estimated to cost R120 million. The potential yield of the aquifer is estimated at 20 MI/day. Funding restrictions are currently being experienced for the complete rollout of Phase 2 of the scheme.	
13.2	Other groundwater schemes	
	BM reported that the NMBM has collected groundwater information on Jeffrey's Arch and the information has been made available to the Kouga LM.	
14.	SEAWATER DESALINATION	
14.1	NMBM 60 Mℓ/d Desalination Scheme Feasibility Study	
	Desalination was identified by DWS in the Algoa Reconciliation Study as the next major potable water augmentation scheme for the NMBM. Implementation of an emergency desalination plant was considered during the drought of 2008 - 2011. Sufficient rain postponed the implementation of the emergency desalination plant.	
	A full detailed feasibility study is currently being undertaken regarding:	
	 Location of the desalination plant Treatment capacity and treatment process required Treatment capacity of the proposed desalination plant. 	
	 The NMBM Water Master Plan identified an initial capacity of 60 MI/day. The site location provides for a phased implementation process as demand and funding availability requires. The EIA process has commenced (2 – 3 years for completion). The estimated cost to fund an initial 60 MI/day capacity desalination plant is R2 billion. The NMBM does not have the capital funding available for a scheme of this size. 40% of the NMBM population is unemployed and therefore ratepayers cannot be expected to fund the scheme through increased water tariffs. Grant funding is the preferred option if available, NMBM busy with business plan submission. NMBM Three-Year Capital Budget: Current 2016/17 – R4 million Draft 2017/18 – R4 million Draft 2018/19 – R4 million Schoenmakerskop was identified as the preferred site location due to: Situated on Municipal land Close proximity to existing bulk water infrastructure Shortest sea intake required Close proximity to existing electrical supply Situated on the western side of NMBM to supplement the western sources during drought periods experienced. 	
14.2	Coega harbour desalination scheme tender	
	No discussion	
15.	KOUGA DAM REHABILITATION PROGRAMME AND FEASIBILITY OF FUTURE RAISING OF THE DAM WALL	
	IT reported that the rehabilitation problem is not as big as previously thought. No raising is therefore envisaged at this stage.	

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16.	IMPACTS ON YIELDS OF EXISTING DAMS: ECOLOGICAL RESERVE & CLIMATE CHANGE	
16.1	Implementing the Reserve for Existing Dams No discussion	
16.2	Climate Change	
	No discussion	
17.	COMMUNICATION	
17.1	Status Report The draft status report was distributed before the meeting. EvdB did a presentation of the status report. AL indicated that the nuclear plant needed to be taken into account and mentioned in the report. Guernakop Dam also needs to be included as a potential future source of water. More details of the Kouga development plans need to be sourced. IT said that the All Towns studies are available and their recommendations should be incorporated. There must be a holistic approach.	All
	EvdB asked IT for access to the latest All Town Studies reports. AL asked to link the All Town Studies recommendations to the Algoa Study.	
17.2	Media Release	
	The media release will be drafted after the status report is finalised.	All
18.	GENERAL	
	AL said that the potential hydro fracking should be mentioned in the status report. All stakeholders are requested to send comments on the status report to the PSP by the end of the following week (end September).	Stakehol ders
19.	NEXT MEETING	
	The date for the next Strategy Steering Committee meeting is Wednesday, 19 April 2017 @ 09h00.	
20.	CLOSURE	
	The meeting was closed at 14:00.	