



## MINUTES OF MEETING

**Algoa WSS Reconciliation Strategy Continuation: ATSG Meeting 16 held on 16 August 2017 at 09h00 at the offices of Aurecon, Port Elizabeth**

Item		Action																																																																																				
1.	<p><b>WELCOME</b></p> <p>The chairperson, Ms Isa Thompson welcomed everybody to the fifteenth meeting of the Administrative and Technical Support Group of the Algoa Water Supply System Reconciliation Strategy Continuation.</p>																																																																																					
2.	<p><b>ATTENDANCE AND APOLOGIES</b></p> <p><b>Attendance</b></p> <table> <tr> <td>Isa Thompson</td><td>DWS: D: NWRP CE: South</td><td>IT</td></tr> <tr> <td>Menard Mugumo</td><td>DWS: D: OA CE: South</td><td>MM</td></tr> <tr> <td>Bheki Kunene</td><td>Proto CMA</td><td>BK</td></tr> <tr> <td>Paul du Plessis</td><td>NMBM</td><td>DT</td></tr> <tr> <td>Pierre Joubert</td><td>Gamtoos IB</td><td>PJ</td></tr> <tr> <td>Stephen Mullineux</td><td>DWS ECape: DCE: Water regulation and use</td><td>SMu</td></tr> <tr> <td>Tony Moore</td><td>DWS: D: OA CE:</td><td>TM</td></tr> <tr> <td>Nick Chapman</td><td>VWSA – Business Chamber</td><td>NC</td></tr> <tr> <td>Jenny Pashkin</td><td>DWS: D: WRPS Systems Operation</td><td>JP</td></tr> <tr> <td>Sandra Munnik</td><td>DWS: Water Section Support</td><td>SM</td></tr> <tr> <td>Martin Labuschagne</td><td>DWS ECape: WR&amp;U-Manager Sarah Baartman DM</td><td>ML</td></tr> <tr> <td>Graham Taylor</td><td>Coega IDZ</td><td>GT</td></tr> <tr> <td>Harms du Plessis</td><td>LSRWUA</td><td>HdP</td></tr> <tr> <td>Barry Martin</td><td>NMBM</td><td>BM</td></tr> <tr> <td>Paul Chilton</td><td>DWS: CE: Proto CMA CM</td><td>PC</td></tr> <tr> <td>Ilse Chilton</td><td>DWS: Proto CMA, Catchment Management</td><td>IV</td></tr> <tr> <td>Thelani Grant</td><td>Living Lands</td><td>TG</td></tr> <tr> <td>Ancia Cornelius</td><td>Living Lands</td><td>AC</td></tr> <tr> <td>Koos Viljoen</td><td>DWS: NWRIS (SO)</td><td>KV</td></tr> <tr> <td>Erik van der Berg</td><td>Aurecon</td><td>EvdB</td></tr> <tr> <td>Kevin McRae</td><td>AfriCoast Engineers</td><td>KmR</td></tr> <tr> <td>Reina Zastron</td><td>Aurecon</td><td>RZ</td></tr> <tr> <td>Maxine Botha</td><td>Aurecon</td><td>MB</td></tr> </table> <p><b>Apologies</b></p> <table> <tr> <td>Rienette Colesky</td><td>Gamtoos IB</td><td>RC</td></tr> <tr> <td>Nico Lombard</td><td>Cacadu District Development Agency</td><td>NL</td></tr> <tr> <td>Liz Metcalfe</td><td>Living Lands</td><td>LM</td></tr> <tr> <td>Robert Higgins</td><td>PetroSA</td><td>RH</td></tr> <tr> <td>Dup van Reenen</td><td>AfriCoast Engineers SA</td><td>DvR</td></tr> </table>	Isa Thompson	DWS: D: NWRP CE: South	IT	Menard Mugumo	DWS: D: OA CE: South	MM	Bheki Kunene	Proto CMA	BK	Paul du Plessis	NMBM	DT	Pierre Joubert	Gamtoos IB	PJ	Stephen Mullineux	DWS ECape: DCE: Water regulation and use	SMu	Tony Moore	DWS: D: OA CE:	TM	Nick Chapman	VWSA – Business Chamber	NC	Jenny Pashkin	DWS: D: WRPS Systems Operation	JP	Sandra Munnik	DWS: Water Section Support	SM	Martin Labuschagne	DWS ECape: WR&U-Manager Sarah Baartman DM	ML	Graham Taylor	Coega IDZ	GT	Harms du Plessis	LSRWUA	HdP	Barry Martin	NMBM	BM	Paul Chilton	DWS: CE: Proto CMA CM	PC	Ilse Chilton	DWS: Proto CMA, Catchment Management	IV	Thelani Grant	Living Lands	TG	Ancia Cornelius	Living Lands	AC	Koos Viljoen	DWS: NWRIS (SO)	KV	Erik van der Berg	Aurecon	EvdB	Kevin McRae	AfriCoast Engineers	KmR	Reina Zastron	Aurecon	RZ	Maxine Botha	Aurecon	MB	Rienette Colesky	Gamtoos IB	RC	Nico Lombard	Cacadu District Development Agency	NL	Liz Metcalfe	Living Lands	LM	Robert Higgins	PetroSA	RH	Dup van Reenen	AfriCoast Engineers SA	DvR	
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3.	<b>ADOPTION OF AGENDA</b> The agenda was adopted without any changes.	
4	<b>APPROVAL OF PREVIOUS MINUTES</b> The minutes of the meeting held on 11 May 2017 were accepted with the following change: Page 3 point 6.: <i>'living lands'</i> changed to <i>'Living Lands'</i>	
5	<b>MATTERS ARISING FROM PREVIOUS MINUTES</b> No matters arising not on the agenda.	
6.	<b>RELEVANT PROJECTS AND INITIATIVES UNDERTAKEN BY OTHER RESPONSIBLE ENTITIES</b>  <b>6.1 AWSS Annual Operating Rules</b> JP reported that it was decided by the System Operations Forum(SOF) on 29 June that a 25% restriction will be applied to industrial and domestic use and 60% to agricultural use. It was also decided to hold a monthly restriction monitoring meeting. The first such a meeting took place on 14 August 2017. PC said that the restriction notice is still in draft format and that stakeholder input will be needed before it could be published in the gazette. Monthly monitoring reports are produced and distributed to all interested and affected parties.  <b>6.2 Orange River Annual Operating Rules</b> JP indicated that there is currently no restriction on the use of water in the Orange River system. Monthly monitoring reports are produced and distributed to all interested and affected parties.  <b>6.3 OFS Real-time Model</b> JP reported that an enterprise licence for the model is now in place in DWS, with several logins available, and that the system is now being hosted on a DWS server. EvdB reported that DHI has spent time to update the system and that they could provide low-level support until the end of the study, within their budgetary constraint. He indicated that the evaluation of information from the OFS Real-time Model proved to be very valuable to the water use efficiency component of this study.  <b>6.4 Establishment of the upper Kouga/Kromme Irrigators WUA</b> PC indicated that there is no movement on this matter. BK reported that the establishment of all new WUAs have been put on hold for now. IT responded to a question from IC, indicating that current WUAs could be extended, but that it would need stakeholder participation.  <b>6.5 Verification &amp; Validation (V&amp;V) of water use</b> IC reported that this is not an easy project and that multiple challenges are being experienced. The statistics as at end July 2017 are as follows:  Total properties: 7,407 Section35(1) letter sent: 7,795 Section33 letters generated AND signed off by Head Office: 3,466 (44.5% of 7,795) Section35(4) letters generated: 1,315 In process: 2,649 - which means they are either: 1. Still within their 30 days response time, 2. Not agreed, 3. Received Section35(2) and await feedback or supporting documentation substantiating the volume difference from what was initially calculated / proposed by the project	

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	team etc. Non-responders: 3,002 Return to sender: 529	
6.6	<b>Working for Water and Working for Wetlands</b> PJ of GIB indicated that a budget has recently been approved. R12 million was received for the Kouga catchment and R9 million for the Kromme catchment. The money will be used for follow-up work. R2 million has been approved for the Kromme wetlands rehabilitation and R2.5 million for the rehabilitation work in the Baviaans catchment. The money will mostly be spent on the maintenance of the weirs.	
6.7	<b>Projects undertaken by Living Lands</b> TG of living lands did a presentation on the work that they are busy doing. In the Baviaanskloof, restoration work is ongoing with the team making a dramatic, positive impact, especially on dead, capped soils. In the Langkloof, a nursery has been built in Haarlem together with the Haarlem Women's Forum. This nursery will first enable the women's forum to produce their own vegetable seedlings, while gaining experience in managing a nursery. In the future, there is the potential to produce seedlings that could be used for rehabilitation in the area. Honeybush trials have been started in the Langkloof, looking at the different cultivation methods as well as potential intercropping with other, high value, water efficient plants. There has also been a Rehabilitation Blitz in the Kouga, where alien vegetation was removed and various rehabilitation interventions were applied. Interventions included stabilisation of head-cuts, re-sloping of gullies, erection of silt traps and digging of ponds to capture sediment and prevent gullie forming. In the Baviaanskloof and the Langkloof, the participatory hydrological model building project is well underway, with various workshops being held and large amounts of data gathered both in the field as well as from discussions with local stakeholders.	
6.8	<b>National Water Quality Policy and Strategy</b> IT reported on behalf of PV on this matter. The updated policy and final strategy as well as a number of other project reports have been completed and are available on the DWS Website at: <a href="https://www.dws.gov.za/projects/iwqms/Documents.aspx">https://www.dws.gov.za/projects/iwqms/Documents.aspx</a> .  The IWQM Policy has been published for public comment and the final print-ready versions of the Policy, Strategy and Implementation Plan are expected to be available towards the end of the year.	
6.9	<b>Integrated Marine Pipeline servitude</b> EvdB reported the following: <ul style="list-style-type: none"> <li>• The servitude is mainly intended for discharge from CDC to the marine environment.</li> <li>• An additional phase of marine modelling will be done.</li> <li>• The Final Scoping Report was approved by DEA.</li> <li>• The appointed PSP is busy with the Draft EIR, but have applied for a 6-month extension from DEA, and is awaiting their feedback.</li> <li>• The servitude itself should not have freshwater requirements, other than during the construction phase of the various infrastructural components that will form part of the servitude for dust control, concrete mixing, staff water requirements etc.</li> </ul>	
6.10	<b>Aquaculture</b> EvdB reported that the final EIA report for this proposed development has been submitted. Approval by DEA is overdue as there are some authority issues around waste management that are still being discussed.	

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6.11	<p><b>Combined Cycle Gas Turbine (CCGT)</b></p> <p>EvdB indicated that the EIA application for the Gas to Power Project, termed the Combined Cycle Gas Turbine (CCGT) Project has not yet been lodged. The PSP is currently in the process of finalizing the project description for the draft scoping report. Given that the details of the design and technology options have not yet been fully defined, the PSP is not able to provide answers regarding potable water requirements.</p> <p>GT mentioned that two sites have been earmarked for a CCGT, in Port Elizabeth as well as in Richards Bay.</p>	
<p><b>7</b></p> <p><b>7.1</b></p>	<p><b>STATUS REPORT</b></p> <p><b>Progress Report (Status Report 6)</b></p> <p>EvdB presented a summary of the draft Status Report. The following aspects were discussed:</p> <ul style="list-style-type: none"> <li>• Water availability and requirements</li> <li>• Interventions</li> <li>• Scenario planning</li> </ul> <p>JP pointed out that in the Algoa Operating Analysis, 2017 it is noted that it is preferable that all irrigators receive the same priority water throughout the AWSS. JP asked EvdB to change the priority of the irrigators as per the Algoa Operating Analysis 2017 note.</p> <p>JP enquired about the existing system yield used in the scenario planning. She indicated that the yield seems too high and wanted to know why the yield has increased with more than the additional water received from Nooitgedagt. EvdB undertook to investigate and to ensure that the correct yield is reported.</p> <p>PJ clarified that the Gamtoos Irrigation Board allocation has been corrected/updated to 60.188 million m<sup>3</sup>/a.</p> <p>Eight water requirement scenarios were developed and presented. These scenarios will be included in the status reported. The base year for projections is 2016/17. The water balance picture appears better than the previous year. EvdB noted that this largely illustrates the influence of the starting value, the starting value being the lower than projected use of 2016/17 which is the result of the restrictions and efforts to reduce water use because of the drought.</p> <p>SM asked what growth rate was being used for Kouga LM. EvdB clarified that it was 3.5% linear growth. SM noted that DWS were using 3.3% for their growth estimations, and EvdB was asked to use the same projected growth.</p> <p>BM requested that the potential scheme for additional water to be abstracted from the Nooitgedagt WTW, following the Phase 3 development, be referred to as the Nooitgedagt Low Level Scheme Phase 4.</p>	<p>EvdB</p> <p>EvdB</p> <p>EvdB</p>
<p><b>8</b></p> <p><b>8.1</b></p>	<p><b>OPERATIONAL EFFICIENCY</b></p> <p><b>Darlington Dam Operating capacity and dam safety rehabilitation programme</b></p> <p>KV reported that the Terms of Reference (TOR) for this programme has been sent to DBAC and that a response is awaited. Previously it was reported that the feasibility study and designs will be done in 2017 and that construction would start in 2018.</p>	
8.2	<p><b>Additional balancing storage in the LSRGWS</b></p> <p>EvdB did a presentation on the topic. (The full presentation is available and can be provided to interested members).</p> <p>The initial seven storage/conveyance options that were identified to ease the bottleneck in the</p>	

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	<p>water supply system to Nooitgedagt WTW, were reduced to the following two options:</p> <ol style="list-style-type: none"> <li>1. Construction of a larger dam near the present Scheepersvlakte Dam site and integration of this dam with the existing gravity pipeline to the Nooitgedagt WTW, and</li> <li>2. Construction of a large balancing dam on the right bank near the Nooitgedagt WTW.</li> </ol> <p>The advantages and disadvantages of both options were presented. The preliminary environmental investigation showed no “fatal flaws” for either option. The next steps are to:</p> <ul style="list-style-type: none"> <li>• Meet with the respective land owners for both dam sites.</li> <li>• Engage with the Scheepersvlakte 98 Citrus Development Trust regarding their request for a temporary water abstraction from Scheepersvlakte Dam.</li> <li>• Do a detailed geotechnical study to assess the suitability of both short-listed dam sites.</li> <li>• Do topographical site survey of both short-listed dam sites in support of preliminary design and costing to be done.</li> </ul>	
<b>9</b>	<p><b>WATER REQUIREMENTS AND USE</b></p> <p><b>9.1 NMBM water requirements and use</b> BM reported the following:</p> <ul style="list-style-type: none"> <li>• NMBM is experiencing one of worst droughts in history.</li> <li>• The combined dam levels that supply Algoa WSS have dropped to below 32%.</li> <li>• Below average rainfall is predicted for the next rain period.</li> <li>• Restrictions were originally imposed in September 2016, and because the drought has persisted with the dam levels dropping below 40%, additional restrictions were imposed in May 2017 (Part C for domestic and institutional and Part B for industrial and commercial consumers) to reduce usages</li> <li>• A Drought Disaster was declared on 22 May 2017 by the Executive Mayor into Section 55 of the Disaster Management Act and is awaiting Provincial Gazetting.</li> <li>• An estimated one year of water supply is left, with dams estimated to reach dead storage levels by August 2018 (if there were no inflow).</li> </ul> <p><b>9.2 Coega IDZ water requirements</b> GT said that there are no changes to the Coega water requirements. The timing of the re-use scheme stays a challenge. He indicated that the schemes will be brought in line when investors are signed and the water is needed.</p> <p><b>9.3 Kouga LM water requirements</b> No Kouga LM representative attended the meeting and no report was submitted.</p> <p><b>9.4 WUE Fish and Sundays catchments</b> EvdB gave a summary of the water use efficiency (WUE) interventions identified in the Fish and Sundays rivers' catchments. The six previously short-listed WUE interventions have been refined into five WUE interventions for further investigation, these being:</p> <ol style="list-style-type: none"> <li>1. Lining of earth canals in the GFRWUA</li> <li>2. Improved measuring and monitoring</li> <li>3. Clearing of reeds along the Great Fish River</li> <li>4. Reduced operational releases at Elandsdrift Weir</li> <li>5. Rehabilitation of Darlington Dam</li> </ol> <p>A summary of the potential savings is as follows:</p>	

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<b>Estimated total potential savings:</b>	<b>15 – 30 million m³/a</b>													
9.5	<b>Thyspunt Nuclear Power Plant</b> The development of the Thyspunt nuclear plant is uncertain at this stage.													
10	<b>IMPROVING THE CONFIDENCE OF WATER AVAILABILITY</b>													
10.1	<b>Proposed water availability assessment study – Kromme and Kouga rivers</b>  IT said that this study submission has gone to DBAC for approval and it should come back soon. She hopes that the study will start towards the end of the year.													
11	<b>WC/WDM</b>													
11.1	<b>Report by NMBM</b>  BM did a presentation on WC/WDM measures at NMBM. (The presentation is available and could be requested from Aurecon). The real losses reduced from 37.3% in 2015/16 to 29.4% in 2016/17. The aim of the NMBM is to reduce the losses to below 20% in the next 3 years. BM noted the importance of ensuring that the billing to customers should be correct. He noted that the NMBM water tariff is the lowest in South Africa.  The NMBM drafted a 10-year WC/WDM plan, and is focussing on the following work streams: <ul style="list-style-type: none"><li>• Bulk Supply Meters / Bulk Water Balance</li><li>• Greater Metered Area (GMA) Discreteness and meter status</li><li>• District Metered Areas (DMA) Discreteness and meter status</li><li>• Pressure Metered Areas (PMA) Discreteness and meter status</li><li>• Pressure Reducing Valve (PRV) Management</li><li>• Remote Meter Monitoring</li><li>• Non-Revenue Water (NRW) stats</li><li>• Billing statistics</li><li>• Water Tariffs</li><li>• Leak Repairs</li><li>• ATTP Leak Repairs<ul style="list-style-type: none"><li>– School Leak Repairs</li><li>– Cluster Contractors: Meter installations</li><li>– Leak Fixing Festival</li><li>– Repair &amp; Maintenance Contractor</li></ul></li></ul>													

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	<ul style="list-style-type: none"> <li>• Domestic Meter Audit and On-Property Leak Repairs</li> <li>• Valve and Fire Hydrant Audit</li> <li>• Special Investigations</li> <li>• Meter Replacements</li> <li>• Social Interventions</li> </ul>	
11.2	<p><b>Report on progress with WUE in schools</b></p> <p>BM reported that the NMBM will possibly install aqua trips at schools to manage the supply outside of school hours, to reduce wastage. He urged DWS to liaise with Education on the issue of water leaks at schools.</p>	DWS
11.3	<p><b>Report on progress of other municipalities</b></p> <p>No representative of other municipalities attended the meeting. The meeting requested IT to write a letter to Kouga LM to inform them that their allocation is in danger of being reduced due to their non-compliance to WC/WDM and their over-abstraction from the system.</p>	IT
12	<p><b>ORANGE RIVER INTER-BASIN TRANSFER SCHEME</b></p> <p><b>12.1 Nooitgedagt Low-Level Scheme Implementation and Financing</b></p> <p>KmR reported that the Nooitgedagt Low-Level Scheme (NLLS) Phase 2 is 50% functional and should be 100% functional within the following two weeks. He also reported that an electricity problem is being experienced at Motherwell pump station but it should be sorted out soon. The low-lift pump station is complete, commissioned and handed over to NMBM. Three new filters have been operating as from 31 July 2017 and the WTW output increased to 140MI/d. Last 3 new filters to be online from end August. The chlorine dosing system to be finalised together with Phase 3.</p> <p>Phase 3 progress is as follows:</p> <p>Contractor was appointed in December 2016, with the commencement Date 19 May 2017. The contractor established on site at WTW and Olifantskop reservoir site. Bulk excavations for WTW structures and 45MI reservoir is complete. Water in the excavation for new filters causing founding problems. Currently a drilling rig has been arranged to check depth of rock for possible piling.</p> <p>The construction of Phase 3 has just commenced and is due for completion in 2019.</p> <p><b>12.2 Potential further future allocation (maximising existing scheme)</b></p> <p>MB reported that the total water savings which could potentially be reallocated to the NMBM, should all of the final recommended WUE options be successfully implemented, may amount to 18 million m<sup>3</sup>/a (50 Ml/day). It was cautioned that this is a preliminary recommendation for a potential reallocation volume to the NMBM, and it is possible that the actual volume that can potentially be reallocated may be lower or higher than these estimates. This is equivalent to the difference between the average flow and peak flow of the NLLS Phase 3, i.e. 210 – 160 = 50 Ml/day.</p> <p>It is recommended that a conservative approach be taken for the preliminary sizing of any potential future bulk water supply or storage infrastructure designed as part of this study, which can be refined once the potential savings are better understood.</p> <p><b>12.3 Desalination of Sundays River irrigation return flows</b></p> <p>A high-level pre-feasibility evaluation of this potential scheme will be done as part of this study after the water efficiency component of the study has been completed.</p>	

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13	<b>RE-USE OF WATER</b> <b>13.1 Re-use of water treated to industrial standards –Fish Water Flats and Coega WWTWs</b> GT indicated that the Coega Development Corporation is planning to complete the 17 Mℓre-use reservoir within the next few months. The reservoir will initially be used for potable water. No other work is planned at this stage due to a lack of funding.  BM said that the inlet works of the Fishwater Flats WWTW has just been increased from 132 Mℓ/day to 165Mℓ/day. The cost of the re-use scheme is estimated at R600 million.	
14	<b>GROUNDWATER</b> <b>14.1 NMBM Coegakop implementation</b> BM indicated that the tenders for the drilling and civil works for production holes are under evaluation. He noted that the tender for the 20Mℓwater treatment works should be advertised in January 2018.	
14.2	<b>Other groundwater studies</b> BM said that groundwater sources downstream of the Churchill Dam will be drilled within the next 3-6 months. If the quality of the water is good enough, the water will be put into the Kromme pipeline. PC cautioned that the reservoirs may require desludging should they be augmented from groundwater.	
15	<b>SEAWATER DESALINATION</b> <b>15.1 NMBM Desalination Scheme</b> BM indicated that the NMBM is liaising with the Coega IDZ regarding seawater desalination opportunities; they still need partners for the project. NMBM is also liaising with Swartkops Sea Salt about a potential mutually beneficial agreement, whereby NMBM could make use of potable water as a buy-product.	
16	<b>LOCAL SURFACE WATER DEVELOPMENT</b> <b>16.1 Kouga Dam ‘raising’ and Guernakop Dam</b> This potential development will only be addressed after the desalination of Sundays River irrigation return flows has been considered, as it is expected to be more expensive and to have a significant environmental impact, and should there still be budget available for such an assessment.	
17	<b>IMPACTS ON YIELDS OF EXISTING DAMS: ECOLOGICAL RESERVE&amp; CLIMATE CHANGE</b> <b>17.1 Implementing the Reserve for existing dams</b> Implementing the Reserve will only be considered when new dams are added to the system.	
18	<b>COMMUNICATION</b> <b>18.1 News Release</b> The News Release will be drafted before the SSC meeting. <b>18.2 Webpage Update</b> IT will provide Aurecon with the contact details of the new webmaster at DWS.	IT
19.	<b>GENERAL</b> No discussion.	



Item		Action
20.	<b>NEXT MEETING</b> ATSG Meeting Wednesday 25 October 2017 @ 09h00 SSC Meeting: Wednesday, 27 September 2017 @ 09h00	
21.	<b>CLOSURE</b> The meeting was closed at 14h00.	

Chairperson: Ms I Thompson (DWS)    Signed: \_\_\_\_\_    Date: \_\_\_\_\_

Study Leader: Mr E vd Berg (Aurecon)    Signed: \_\_\_\_\_    Date: \_\_\_\_\_