



DEPARTMENT: WATER AND SANITATION
Directorate: National Water Resources Planning

IMPLEMENTATION AND MAINTENANCE OF THE WATER RECONCILIATION STRATEGY FOR RICHARDS BAY AND SURROUNDING TOWNS

STRATEGY STEERING COMMITTEE MEETING NO 2

MINUTES OF STRATEGY STEERING COMMITTEE MEETING NO 2 HELD AT THE SOCIAL LAPA, MHLATHUZE WATER, RICHARDS BAY ON 4 DECEMBER 2018

Item	Description	Action																																																																								
1.	<p>OPENING</p> <p>WELCOME</p> <p>PM welcomed all to the meeting. He apologized for the last minute change of venue due to Eskom load shedding. SN provided a brief Emergency Plan. A round of introductions followed.</p>																																																																									
2	<p>ATTENDANCE & APOLOGIES</p> <p>Attendance</p> <table><tr><td>Kennedy Mandaza</td><td>DWS: Study Manager</td><td>KM</td></tr><tr><td>Patrick Mlilo</td><td>DWS: Planning</td><td>PM</td></tr><tr><td>Sakhile Mamba</td><td>DWS: Planning</td><td>SM</td></tr><tr><td>Caryn Seago</td><td>WRP: Deputy Study Leader</td><td>CS</td></tr><tr><td>Sabelo Cele</td><td>WRP: Stakeholder Engagement</td><td>SC</td></tr><tr><td>Nsika Zondo</td><td>WRP: Task Leader</td><td>NZ</td></tr><tr><td>Celenkosini Gumede</td><td>DWS: KZN</td><td>CG</td></tr><tr><td>Gibson Gumede</td><td>DWS: KZN</td><td>GG</td></tr><tr><td>Mkhungo Bhabha</td><td>DWS: KZN</td><td>MB</td></tr><tr><td>Nontando Mzobe</td><td>DWS: KZN</td><td>NM</td></tr><tr><td>Candice Webb</td><td>WWF</td><td>CW</td></tr><tr><td>Jane Burt</td><td>WWF</td><td>JB</td></tr><tr><td>Stefan Botha</td><td>Mhlathuze Water</td><td>SB</td></tr><tr><td>Swaswa Ntlhoro</td><td>Mhlathuze Water</td><td>SN</td></tr><tr><td>Zeon Meyer</td><td>Isizindal</td><td>ZMe</td></tr><tr><td>Jacquette Adam</td><td>RMX/Exigent</td><td>JA</td></tr><tr><td>Nick Okello</td><td>Tronox</td><td>NO</td></tr><tr><td>Brendon Crawford</td><td>Mondi</td><td>BC</td></tr><tr><td>Christa van der Walt</td><td>ZCCI</td><td>CvdW</td></tr><tr><td>Mike Patterson</td><td>ZCCI</td><td>MP</td></tr><tr><td>Zingisa Mavuso</td><td>Tongaat Hulett</td><td>ZM</td></tr><tr><td>Vika Mthethwa</td><td>King Cetshwayo DM</td><td>VM</td></tr></table> <p>Apologies</p> <table><tr><td>Lilene Louw</td><td>IX: Study Leader</td></tr><tr><td>Siyabonga Buthelezi</td><td>Mpact Paper</td></tr><tr><td>Jacques du Toit</td><td>Isizindal</td></tr></table>	Kennedy Mandaza	DWS: Study Manager	KM	Patrick Mlilo	DWS: Planning	PM	Sakhile Mamba	DWS: Planning	SM	Caryn Seago	WRP: Deputy Study Leader	CS	Sabelo Cele	WRP: Stakeholder Engagement	SC	Nsika Zondo	WRP: Task Leader	NZ	Celenkosini Gumede	DWS: KZN	CG	Gibson Gumede	DWS: KZN	GG	Mkhungo Bhabha	DWS: KZN	MB	Nontando Mzobe	DWS: KZN	NM	Candice Webb	WWF	CW	Jane Burt	WWF	JB	Stefan Botha	Mhlathuze Water	SB	Swaswa Ntlhoro	Mhlathuze Water	SN	Zeon Meyer	Isizindal	ZMe	Jacquette Adam	RMX/Exigent	JA	Nick Okello	Tronox	NO	Brendon Crawford	Mondi	BC	Christa van der Walt	ZCCI	CvdW	Mike Patterson	ZCCI	MP	Zingisa Mavuso	Tongaat Hulett	ZM	Vika Mthethwa	King Cetshwayo DM	VM	Lilene Louw	IX: Study Leader	Siyabonga Buthelezi	Mpact Paper	Jacques du Toit	Isizindal	
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	<p>John Readman Irrigators</p> <p>Kobus Bester DWS: Options Analyses</p> <p>Angela Masefield DWS KZN</p> <p>Jay Reddy DWS: KZN</p> <p>Cobus van der Walt DWS: KZN: IE: Water Use</p> <p>Nkosinjani Mkhize DWS: KZN: IE</p> <p>Richard Martin DWS: WRPS</p> <p>Ntobeko Cele DWS: WRPS</p> <p>Geert Grobler DWS: WRPS</p> <p>Rheenie Mbatha City of uMhlathuze LM</p> <p>Geoff Lagerwall RBM</p> <p>Michelle Hiestermann UWASP</p> <p>Sandy Caminga</p>	
3.	<p>ACCEPTANCE OF AGENDA</p> <p>The agenda was accepted without modifications</p>	
4.	<p>PURPOSE OF THE MEETING</p> <p>KM provided a brief background to the Study and explained that the main purpose of the meeting was to obtain feedback on Strategy interventions and provide progress made on the Study activities to date. He described the three tiers of Study Management, and stated that this meeting was on the highest tier, namely the Strategy Steering Committee.</p>	
5	<p>APPROVAL OF MINUTES (STRASC 1: 1 AUG 2018)</p> <p>A few minor editorial issues were pointed out by PM as corrections to the minutes:</p> <ol style="list-style-type: none"> 1. The spelling of Alloycius (Salagae) was incorrect. 2. The private entity operating the existing desalination plant was to be mentioned by name as: North Coast Water. 3. The correct figures relating to the reduction of water use as a result of 3500ha of farming land being unutilized should have been 32 million m³/a (at an estimated allocation of 9000 m³/ha/annum). 4. The meeting mentioned in the minutes scheduled for January 2019 had been moved forward to December 2018 (this meeting). <p>The minutes were adopted without further modifications. PM stated that they would be uploaded to the study website.</p>	SM
6	<p>MATTERS ARISING FROM PREVIOUS MINUTES</p> <p>CS took the meeting through the Action list resulting from StraSC 1. She mentioned that the majority of the actions had been undertaken, and a few would be further discussed under the relevant item (7) of the agenda.</p>	
7	<p>STATUS OF STRATEGY INTERVENTIONS</p>	
7.1	<p>Infrastructure (Thukela, Goedertrouw, Umfolozi)</p> <p>CS provided feedback she had received from DWS: Options Analyses. She explained that the situation relating to initiating pre and feasibility studies for the various infrastructure options (raising Goedertrouw, additional transfer from the Umfolozi and further transfer from the Thukela) had not changed. DWS was having financial constraints, and had not been able to start with the studies. She</p>	

reminded the meeting, however, that the construction for the additional transfer increase from 1 m³/s to 2.2 m³/s from Middeldrift was underway as this was fast tracked during the drought.

PM requested that the investigation of these options still be kept on the list as it is important to try to make progress with them, even if the Department is under financial constraints. He said that the Steering Committee can recommend from this study that an update in the Thukela and Umfolozi hydrology takes place.

KM added that the urgency of initiating the studies was taken into consideration after the Strategy (2015) was finalized, and Terms of Reference for the studies were developed. The progress is therefore only being stalled by the financial constraints of the DWS.

NO queried the timeline of the hindrance, and when the funding could potentially become available. PM explained the situation is ever evolving, and that efforts are underway to turn the situation around. He said that from a National Water Resource Planning side, the prioritization of projects was being done.

SN queried whether all the various options and interventions from the Strategy (2015) needed to be investigated, or if it would just be some options. PM indicated that those strategies that the Department is supposed to undertake will be further investigated in detail and outlined a typical approach of a detailed strategy evaluation; listing and ranking options by comparing costs and increase in water resources (through Unit Reference Values). He said feasibility studies should be done in order to further assess the potential interventions. KM added that the interventions that made the Action List from the Strategy (2015), especially the high priority ones, should be taken forward for further assessment. He said the likelihood of all or some interventions being required is high in the 30 year planning horizon of the study, however, the timing and sequencing of the interventions may differ.

7.2 Land Care (Aliens, Illegal Forests removal)

MB provided feedback on behalf of Mr Nkosi Mkhize who was unable to attend the meeting. He said that a lot of effort has taken place through the Catchment Management Forum (CMF) where the need to address alien invasive plants has been established as a high priority issue. He said that a sub-committee has been established through the CMF to look further into the matter. CW added that the Department of Environmental Affairs has been very active in the catchment and that the World Wildlife Forum is assisting as well. She said that the sub-committee of the CMF, of which she is a part, have drafted a policy document outlining the approach to addressing the alien plant removal and that this has been circulated for inputs. Thereafter, targets will be set to start addressing the problem in a systematic way. She was confident that the policy document will assist with taking the matter forward at the required urgency.

MB provided further feedback on the removal of illegal forests in the catchment. He said that it was the DWS KZN Office's understanding that the illegal forests had all been dealt with through Compulsory Licensing. He said that the Regional Office was not aware of any and that the meeting members should provide any information they have if they are aware of illegal forests. GG said that, if that is the state of the situation, he requested that the matter be closed and removed from the agenda in the future. CW said that she was aware of illegal forests, especially around the Coastal Lakes, and that it was still very much a problem. She said she had maps relating to the extent and that she would share the

CW

maps. MP said that he is involved with other Forums and that he often hears mention of illegal forests, and that it is a serious issue.

7.3

Seawater Desalination

CS provided a brief history of the item relating to seawater desalination. She reminded the Steering Committee that:

1. The initiation of a feasibility study to investigate desalination of seawater on a large scale was included as a high priority intervention on the Action List of the 2015 Strategy.
2. The responsibility was not assigned to any organization and it was stated as “to be determined”.
3. Angela Masefield had said at the StraSC 1 meeting that this type of intervention would typically be explored further by the Local Water Board (as done by Umgeni Water for Ethekwini) as it would be to the benefit of the local area only.
4. Angela Masefield further explained at StraSC 1 that many were under the impression that the desalination intervention had been carried out and were confusing the large scale plant with a small plant that had been implemented during the drought. She said that the implementation of this plant did not mean the investigation into the feasibility of large scale desalination should no longer take place.
5. Zama Zuma of Mhlathuze Water had requested support from DWS at StraSC 1 to encourage the decision makers of Mhlathuze Water of the importance to initiate the feasibility investigation.

SB continued with the feedback and informed the meeting that Zama Zuma had resigned from Mhlathuze Water and that he had taken over from her two months ago. He said he understood the hesitation from the Mhlathuze Water decision makers to further explore the option as it is a very expensive way to supply water compared to other options, and that not all other options had yet been exhausted. He said it did not make sense from a business perspective.

CW said that she supported the concept of exploring cheaper methods to augment the existing water resources, however, reminded the meeting that during the recent drought, all other resources were at an absolute minimum. Lake Mzingazi was drawn down too low, and it seemed as if the only alternative would have been to desalinate seawater. CvdW agreed with this understanding.

SN confirmed that Mhlathuze Water had received a letter from DWS encouraging them to investigate a few options to augment the water supply, desalination of seawater being one. He said that Mhlathuze Water was digesting the request and that a formal response to DWS would be drafted.

SN

KM said that he understood that desalination plants are installed as modular units and that the existing small plant could be increased in size by adding additional modules. He said that, while it is believed that desalination is an expensive option, all the various dynamics need to be explored in a scientific approach and that should be done in a feasibility study. It would then provide decision makers with enough evidence to understand if the option is viable for the future or not. The costs involved with having the plant as a standby water source for emergency use only could then be compared with other options.

MP queried the existing small plant regarding its current status as the plant has been located incorrectly and experiences problems as a result of the location. PM responded that, that was an operational issue and would not be addressed

	<p>by this meeting, and explained that the Strategy Steering Committee needs to be informed of whether or not the concept of further desalination is viable for further investment.</p> <p>GG requested that an adjustment be made relating to the request for further investigation sent by DWS to Mhlathuze Water. He said the letter came as a request and was not issued as a Directive.</p>	
7.4	<p>Use of Treated Effluent</p> <p>No feedback was provided as a result of the absence of the Municipality</p>	
7.5	<p>Billing of Irrigators</p> <p>CS reported on the information that she had received from John Readman on behalf of the irrigation sector. She said that a meeting had taken place the day before between the irrigation representatives and the DWS Regional Office. The irrigators had been advised that they should formalize themselves into one combined representative Association, including all four schemes, in order to further engage with DWS on the matter. She said that DWS had said that due to the existing restrictions, the irrigators were currently being billed less, and that now was an appropriate time to organize themselves.</p> <p>CW further expanded that one of the recommendations from the meeting was that the organized agriculture sector put forward a proposal (concept note) to DWS outlining the potential benefits and possible savings that could be made if the irrigation sector was to be billed on actual use. She said that there was presently no incentive for the irrigators to use water more sparingly as they are paying for their full allocation anyway. Implementing a better metering and billing system would result in water savings. PM added that increasing the efficiency of the irrigators' water use could release more water for other users in the catchment. He hoped that a small study could be initiated by the Regional Office in order to determine the potential gains.</p> <p>MB stated that, in his experience in the industry, he has come across many other Water User Associations making a similar request to be billed on actual use. He said that the existing Policy is however preventing this from happening, and read out an extract which states that "if irrigators are to be billed on actual use, they must surrender all unused water back to the Department."</p> <p>KM reminded the meeting that a portion of the charges to the irrigators is for the maintenance and upkeep of infrastructure (as well as recovering some of the initial capital costs). He said these costs are the same whether the climate produces a good or a bad rainfall year. If irrigators are to be billed on their actual use, they would pay less in a wet year as they would benefit from rainfall, however, the Department's infrastructure maintenance costs needs would still remain and they would be operating at a loss.</p> <p>SN mentioned that there may be a possibility of a two tariff structure, as presently implemented by Mhlathuze Water, where a portion of the charges is offset to infrastructure costs, and another portion pays for the actual water used. In this way both parties will obtain the benefits of the new approach. He said that part of paying for water was to pay for the availability of that water and not just the use thereof.</p> <p>SB stated that he was seeing the need for a wider investigation into feasible solutions for the catchment's water balance, and mentioned that Mhlathuze</p>	CW/Irrig

	<p>Water could further liaise with the Department to initiate a study to look at all the options. He said that he could discuss such a study with the Board in order to gain their approval.</p>	SB
7.6	<p>Operational</p> <p>CS mentioned that Norman Ward, who was due to report back on the status of water savings from improved operations, had unfortunately mixed up the date of the meeting. CW mentioned that Norman Ward had previously assisted in significant water savings by improving operations and that the uMhlathuze Water Stewardship Partnership had recently brought him back from retirement to assist with the transfer of knowledge and training on the operations for a young engineer from DWS: KZN. The role is in a mentorship capacity.</p>	
8	<p>OVERVIEW OF STUDY ACTIVITIES AND COMPLETED TASKS</p> <p>CS provided an overview of the various Tasks, both ongoing and to be undertaken in the future, as part of the Study. She highlighted that the Study was on schedule according to the original programme.</p>	
9	<p>CURRENT PROGRESS</p>	
9.1	<p>Demographics and Socio Economics</p> <p>CS provided a brief overview of the Task as the details had been presented at StraSC 1. She said the report had been approved and was available for distribution.</p>	
9.2	<p>Water Requirements and Return Flows</p> <p>CS provided a summary of the Task. She explained the methodology used to update the water requirements.</p> <p>PM enquired from the meeting whether they agreed with the numbers and were happy to take them further into other Tasks of the study. NO and ZM requested copies of the report in order to check the information as they were not able to see clearly from the slide presentation.</p> <p>MB requested the delineation of the quaternary catchments in a map in order to review the afforestation and alien information.</p> <p>SB queried that, given that the new high projection scenario was lower than the previous high projection included in the Strategy (2015), whether or not all the investigations into additional water resources would be required. MP stated that he understood that the possibility of Eskom providing cheaper electricity in Richards Bay would greatly impact on the future water requirements as it would mean further Industrial Development would take place. PM said that Richards Bay was fourth on the priority list of industrial development and that expansion would be focused around the Lephalale area due to the close proximity of coal resources.</p> <p>CvdW queried whether the PSP had engaged with Transnet in determining the future water requirements as she understood there were plans for major Port Expansion through the TNPA:TPT. She said she would provide the contact details of the relevant person for further discussions.</p>	<p>CS</p> <p>CS</p> <p>CvdW/PSP</p>

SB again queried the need to explore all the alternatives in the context of the lower water requirement projections. PM highlighted that internal process often take time, and that it would be useful to get them underway such that a bottle neck does not occur in the future if studies need to be initiated. He said that by the middle of 2019, the Steering Committee would be provided with a first round water balance including the water resources and the updated requirements and further decisions can then be taken regarding which studies should be focused on.

KM said that National Government typically focused on schemes that are regional inter alia those that are inter-catchment in nature resulting in the requirement for large transfers. MP added that the Umfolozi option would be a good example where additional supply for Richards Bay could be sourced at the same time as resolving Mtubatuba's water deficit. KM added that the Technical Support Group had been engaged and provided inputs in order to produce a scenario for the urban growth in water requirements.

MP was concerned that, by eliminating the Strategy (2015)'s high growth scenario, the planning of future resources could fall short of the potential demand curve. CS explained that the purpose of this study was to update the previous work, and that all major users had been engaged with to determine their future water requirements. She said that reverting back to the original high projection would eliminate the updated information obtained. She encouraged the users to review the report and to confirm that the projections were as originally provided. PM said that the potential for a higher growth curve would be considered when finalizing the Strategy update.

9.3 Water Conservation/Water Demand Management

NZ presented the progress made to date on the WCWDM Task. CvdW queried the figures included on the slide reflecting the water loss indicators, and said that the numbers appeared high.

PM requested that a schematic layout of the system be produced and CS stated that it is available and was included in the water requirements report. JB queried whether the correct budgeting for WCWDM implementation was happening and NZ responded that there needed to be further political will and buy in. JB reminded the meeting that the IDP process was open and encouraged Stakeholder inputs.

CW said that the figures were below the National average, ie. the Municipality had fewer losses comparatively.

CvdW highlighted that the KCDM need capacity building and improved skills to tackle water losses, more so than the CoMLM. VM confirmed that the KCDM is the WSA and WSP for the smaller towns included in the Study and mentioned they are currently receiving support from an external Consultant.

SN mentioned the benefit of reporting all water losses in the form of monetary value as it provides a context for the seriousness of the situation.

CvdW queried the tariffs presented and mentioned she pays more for water than what was indicated on the slide. NZ requested that she provide a copy of the latest tariffs included with her water bill to compare with the information he had.

BC corrected the slide which referred to the top water consumers that read water

CvdW

	<p>use, and stated that it should have read water allocations.</p> <p>PM said it was important to gain the Municipality's perspective on the targets relating to the decrease in water losses and again mentioned the importance to impress upon the City to attend the meeting. He requested that the Steering Committee members who engage with the Municipal officials in other forums encourage their participation at this meeting. It was agreed that a letter would be drafted to the Municipal Manager to explain the need for their attendance. SB said he would provide the contact details.</p> <p>CS outlined that a high level assessment would also take place regarding potential savings in the irrigation sector. Information from the concept note to be drawn up by the irrigators would be used. She said that the irrigators would be open to partnerships with other water users to fund implementation of more efficient irrigation systems which would then free up more water for other users.</p> <p>CS provided information relating to the training task in the study. PM requested that the Municipalities be invited to the next training on WCWDM to take place in 2019.</p>	<p>CS & KM SB</p>
10	<p>DISCUSSION AND COMMENTS</p> <p>Discussion had taken place throughout the meeting and no further comments were made.</p>	CS & SM
11	<p>STRASC COMMUNICATION AND CONFIRMATION</p> <p>CS explained that the minutes of the meeting would be distributed, and that a newsletter would be produced in January 2019. She said that the Study website link should be updated by the end of 2018 including all the Study documentation completed to date.</p>	CS SM
12	<p>NEXT MEETING</p> <p>The meeting proposed that the next meeting be scheduled for the end of May 2019, in about six months' time. KM encouraged all to attend that StraSC 3 meeting as preliminary water balances will be produced by that stage and it is important that the StraSC provide further inputs.</p>	
13	<p>CLOSURE</p> <p>PM thanked the Stakeholders for attending the meeting and Mhlathuze Water for hosting. He invited all to join for lunch.</p> <p>MINUTED BY: C J Seago.</p>	