



## Fluid Thoughts



## Having a frank discussion on the status of SA's water

*The recently held National Water Summit has opened the door to the creation of a shared vision for the future of water and sanitation in South Africa, writes Water Research Commission (WRC) CEO, Dhesigen Naidoo.*

**W**ater is the lifeblood of both the economy as well as our personal well-being. This axiom is revisited and re-confirmed every day in our country and around the world.

We have the three-dimensional challenge of servicing an increasing and developing population; meeting the needs of a water-intensive economic growth pathway; and dealing with the vagaries of the water challenges associated with climate change in an already water scarce South Africa. In addition, like many developing countries and now even some OECD states, we have a backlog on both safe sanitation, and to a slightly lesser degree, safe water access.

Newly appointed Minister of Water and Sanitation, Nomvula Mokonyane, in

her budget speech to Parliament on 15 July, talked about the mandate of this fifth democratic administration being “to move South Africa forward through radical socio-economic transformation.” In this spirit she added that “As we strive to consolidate our successes and celebrate the good story in the water sector we shall, with immediate effect use this budget to deal with 10% of existing services that are dysfunctional and a further 26% where the provision of water is not reliable.”

She went on to list a series of “game-changers” to turn South Africa’s water and sanitation fortunes around and concluded that “the participation of our people in the water sector is key.” In the first week of August 2014, the Department of Water

and Sanitation, with the Water Research Commission, convened a two-day National Water Summit where all stakeholders in the water family came together and defined our working relationship.

This great Water Indaba, held on 1 and 2 August, for the first time, offered an opportunity for a deep multi-stakeholder engagement to very critically examine both our water and sanitation challenges as well as our responses to them in the last 20 years, with no holds barred. We sought to use the diversity of minds we had in the room to develop and converge on the innovative solutions that we will need in order to successfully solve these problems.

This is the very crux of the Summit investment – the convergence to both a shared vision for the future of water and sanitation in South Africa, as well as multi-stakeholder ownership of the journey to realise that vision.

The South African water and sanitation effort in these last 20 years has been primarily government driven. There have been bouquets for successes, which included a globally acclaimed legislative framework that was indeed worthy of the Stockholm Water Prize in 2000. We have also achieved an increase of primary or basic water access to 40% of the population that never had it before 1994.

This has yet to be matched anywhere else in the world. Our water storage and inter-basin transfer schemes continue to be applauded as world leading. At the same time, we have received brickbats for not ensuring human dignity through universal access to safe water and sanitation services. We are also faced with mounting water quality challenges both on the back of



*WRC CEO Dhesigen Naidoo and WRC Executive Manager, Dr Inga Jacobs, with Water and Sanitation Minister Nomvula Mokonyane, department Acting Director-General, Trevor Balzer, and Deputy Minister Pamela Tshwete.*

current water behaviours and infrastructure integrity challenges, as well as historic poor practices that have come home to roost, such as acid mine drainage.

Government has had this responsibility of the broader water programme, driven in large part by a rights-based constitution with government having the final responsibility on the realisation of those rights. There are important issues to be drawn from this.

The first is that, while there has been a budgetary convenience for the other parties with government picking up the tab, there is a price to pay. One direct consequence is that ironically this country, which boasts many world first in the water domain, does not have a significant water industry outside the public space.

Further, the global presence of the South African water industry is very limited. In fact, South Africa is increasingly becoming attractive as a market for international water companies. These very same water companies could soon become the dominant players in our neighborhood in the absence of significant competition from South African counterparts.

So an important part of the Summit discussions was to look at the role of the private sector in both realising a water secure South Africa, as well as the development of a significant South African water industry in both the public and private sectors.

The second important issue associated with government currently looked at as having the sole service delivery

responsibility is of course the limited partnership model. While the public participation and consultation processes have been very robust, it did not manage to foster the desired co-ownership model.

This is a combination of co-ownership of the asset as well as co-responsibility in its sustainability including security, operations and maintenance. So another important outcome for the Summit is the design of the co-responsibility model to attain a water successful future for South Africa.

A third important issue is the limited non-government investment in research, development and innovation. The WRC has a cache of world leading research from which knowledge has been used to develop marketable products for the real economy, but in other parts of the world where the water innovation and development industry is much more vibrant. Not only is this a net loss of intellectual capital, but also an important missed opportunity not only to better service South Africa's needs, but also to become an important supplier of water and sanitation solutions globally.

The Minister of Science and Technology, Naledi Pandor, in her budget speech, reiterated South Africa's desire to both increase the country's research and development enterprise on the back of a drive to achieve a 1.5% GDP investment as well as organize for the country to increasingly become a preferred destination for science and technology in the world.

Water has very attractive offerings in this regard. We have the opportunity to

become a world leader in water climate change adaptation solutions and technologies, for example. Another opportunity is to up our game in the acid mine drainage arena and become a leading producer of acid mine water, and, salinity and brines solutions. The latter being increasingly acknowledged as the next wave of challenges for global water as all of our resources become increasingly saline from our various industrial and agricultural processes.

But perhaps our best opportunities lie in the realm of assisting the world's poor and marginalised. The first would be to develop low-cost, safe, water-supply options. This would include point-of-use and more decentralised water treatment solutions, as well as alternative supply such as rain and fog water harvesting. The second dimension of this is no or low water, safe sanitation solutions, particularly for peri-urban and rural environments which house the vast majority of the world's poor.

The Summit's objectives were ambitious. The challenges tabled above are both complex and daunting. They will require a huge multi-stakeholder and trans-disciplinary effort to engage them successfully. The rewards for that effort are clearly high and very desirable. A water successful future for South Africa is achievable. The extent and timeframe to attain that future depends on our level of investment – financially, intellectually, politically and indeed emotionally. It began at the Summit on 1 August.



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*The National Water Summit allowed for discussion by various stakeholders over the challenges facing the South African water sector.*



## National Water Summit: Opening Address by Minister of Water and Sanitation, Nomvula Mokonyane

On behalf of both myself and the Deputy Minister, I wish to humbly express my gratitude to all of you for having honoured our invitation to this two-day summit.

It is imperative to remind you that not so long ago, millions across the length and breadth of South Africa went out to cast their vote. The different political parties through their manifestos made communities to choose a party that is better positioned to hold high the legacy of Nelson Mandela. Notwithstanding the challenges and the shortfall of the past 20 years of democracy, the majority of South Africans endorsed the African National Congress (ANC) election manifesto.

This was also an affirmation of the maturity of our hard won democracy as we move South Africa forward hence we are here today, with humility, been assigned the responsibility as the fifth Administration to lead for yet another five years. We are also inspired by our people's resolve to embrace the National Development Plan (NDP) which gives them hope for the future.

South Africans expect from this Administration decisive leadership that can assert authority across government, communities and private sector to bring about radical socio-economic transformation.

For us to bring about this radical socio-economic transformation in real terms, we have to deal with matters in a manner that demonstrates:

- Effectiveness;
- Efficiency;
- Accountability;
- Accessibility, and
- Co-operation amongst all of us.

**“As part of the drive towards radical socio-economic transformation, we need to ensure that solutions to water and sanitation challenges must be about opening the sector to those that have been dis-enfranchised.”**

Therefore, it is on this basis, that we found it befitting to host this summit as a platform to deal with key areas that require game changers in a radical way. And these are:

- Meeting the service delivery challenges;
- Water and sanitation challenges;
- Water research, technology and innovation;
- State of South Africa water resource;
- The role of the private sector; and
- Community participation.

Transformation and de-racialisation of South Africa through the provision of water and sanitation should be fast-tracked. For us to contribute meaningfully to the realisation of the NDP objectives and the electoral mandate, we have to do things differently. In finding solutions to the current challenges, this calls for our collective wisdom in changing the lives of women.

In places like Kwa-Mhlaba Uyalingana, for an example, women should no longer share water with animals or walk bare-foot and pregnant to fetch water in the river while there is the Jozini dam next to their village.

As part of the drive towards radical socio-economic transformation, we need to ensure that solutions to water and sanitation challenges must be about opening the sector to those that have been dis-enfranchised. This will have to be done by providing skills development, economic empowerment as well as access to quality water and dignified sanitation.

The game changers will firstly have to be about revisiting the water ownership patterns and water use rights in our country. Secondly, it is about educating and creating awareness amongst our communities on conservation, preservation and security of our scarce resource as well as innovation.

Furthermore, the game changers will have to harmonise the roles and responsibilities of institutions and all spheres of government in the best interest of the end-user both individually and collectively. We can achieve this, only if we put communities first in what we do and demonstrate that it is business unusual.

As stated by His Excellency President Jacob Zuma, this department has a national obligation to ensure that we infuse



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Minister of Water and Sanitation, Nomvula Mokonyane



life in the provision of quality water and restore the dignity of our people through sanitation.

We are here for the next two days to consolidate the work done in the last 20 years to bring about radical socio-economic transformation in service delivery. It

is that partnership that is essential in moving South Africa forward. We all look forward to a sustainable relationship beyond these two days.

As we move South Africa forward let us remember the words of the founding father of our democracy, Nelson Mandela,

in a document titled “Why Advocate for water, sanitation and hygiene?” where he said: “Sanitation is more important than independence.”

Our preoccupation should be bringing to reality our motto, which is ‘Water is life and sanitation is dignity’. □

## NATIONAL WATER SUMMIT DECLARATION

### PREAMBLE

We the delegates congregated at this National Water and Sanitation Summit on 1 and 2 August 2014, in the province of Gauteng; represented by over 400 participants from all nine provinces, key stakeholder groups including civil society, academia, the private sector, all spheres of government, State-owned enterprises and agencies, labour, as well as parliamentary portfolio committees;

- Recognising the crucial importance of water security and the integrity of the water resources;
- Recognising that access to water and sanitation is a basic human right, are determined to address water and sanitation challenges collectively and decisively;
- Recognising the primary challenges facing water and sanitation in South Africa, and acknowledging the need for innovative solutions that will enable us to take a great leap forward as we collaboratively develop a long-term national vision for water and sanitation;
- Convinced that we need to bring about radical socio-economic transformation in service delivery;
- Acknowledging the importance of doing things differently through communication and partnerships focusing on people-centred solutions;
- Fully conscious of the need to realise solutions in the identified deliberation areas of: meeting the

service delivery challenge, enabling water and sanitation policy, developing and implementing research, technology and innovation choices, enhancing the state of South Africa’s water resources, understanding and defining the role of the private sector;

- Therefore resolve to chart a pathway toward national water security and sustainable universal access to water and sanitation services within the longer-term National Development Plan (NDP) timeframe of 2030.

### PRINCIPLES

Our actions will be guided by the following principles:

- Our efforts shall have the net effect of strengthening the developmental state;
- Our decisions shall be informed by both the best available science, research and technology, as well as real-life, local experiences;
- Our strategies shall be geared toward the development of a South African water and sanitation industry that is globally competitive and locally relevant.

We therefore commit to:

- Effectively utilising the knowledge and information before us to its full maximum for the use of our resources in a diligent and effective manner.
- Create an enabling environment for those who have been isolated, excluded and marginalised from

education, skills development and ownership.

- The repositioning of the function of government through a one-stop centre based in the Department of Water and Sanitation.
- Develop the Water and Sanitation 10-Year Plan (2015-2025) as the water and sanitation pillar of the NDP. The Water and Sanitation 10-Year Plan shall have the following cornerstones:
  - The development of an inclusive, empowering and integrated water and sanitation policy, legislative, and institutional environment.
  - An innovative and inclusive service delivery model driven by research and technology especially with regards to alternative solutions to ensure universal coverage.
  - The third National Water Resources Strategy that will ensure South Africa’s long term sustainable water security in the wake of climate change and our expanded development needs.
  - A novel public-private sector partnership that will ensure optimum service delivery for all as well as developing a competitive South African Water Industry.

We would like to express our sincere gratitude to all those that have participated in the process thus far, and invite the broader South African public to join the water family in this journey.

# National Water Summit: TOWARDS A TEN-YEAR PLAN FOR WATER

*In her first budget speech as the Minister of Water and Sanitation (DWS) earlier this year, Nomvula Mokonyane called upon stakeholders in the South African water sector to come together through a National Water Summit to engage around the sector's challenges and opportunities and collectively discuss ways of moving the sector forward as the country's enters its 21<sup>st</sup> year of democracy. Article by Lani van Vuuren.*

The National Water Summit, held on 1 and 2 August in Boksburg, attracted more than 400 delegates from all nine provinces, representing various roleplayers in the sector. Especially heartening was the presence of the complete Parliamentary Portfolio Committee on Water and Sanitation, members of the Portfolio Committee on Human Settlements, as well as members from the Select Committee on Social Services. Two premiers, Senzu Mchunu of KwaZulu-Natal

and Supra Mahumapelo of North West were also in attendance.

Considered by many to be the start of a new conversation around South Africa's water, the Summit offered a rare opportunity for deep multi-stakeholder engagement to critically examine our water and sanitation challenges and well as our responses to these over the past 20 years. Invited participants engaged on topics related to meeting the service delivery challenge; the water and sanitation policy environment; water research,

development and innovation choices; the state of South Africa's water resources and the role of the private sector.

Indeed, as pointed out by Water Research Commission (WRC) Vice Chair, Dora Ndaba, the summit provided not only the newly-appointed water minister the opportunity to meet stakeholders in the water sector, but to hear first-hand the greatest challenges experienced by the sector, notably sustainably servicing those who are still without safe water and sanitation.



*Minister of Water and Sanitation, Nomvula Mokonyane with Elizabeth Moroaswi from Strydkraal B Village in Limpopo, who provided a community perspective on the need for water for productive purposes.*



## HIGH LEVEL OF PARTICIPATION

According to Water Research Commission WRC CEO, Dhesigen Naidoo, the high levels of participation in terms of numbers and seniority of delegates alluded to the keenness of people from various parts of the sector to contribute meaningfully to developing a water successful future for South Africa. “Certainly the presence of Minister of Cooperative Governance and Traditional Affairs (CoGTA), Pravin Gordhan, made it clear that water presents an important opportunity to get the right kind of model in place for improved service delivery across all spheres in South Africa.”

[The Summit] sent out the very positive message that the DWS is open for business and that the new minister is serious about getting things done with urgency, notes Dr Chris Herold of the South African Institution of Civil Engineering (SAICE). He expressed the hope that those roleplayers who were unable to attend the event would be given an opportunity going forward to make their contribution towards this on-going dialogue.

DWS Acting Director-General Trevor Balzer made it clear that the Summit would only be the start of the conversation, with more discussions planned with various individual stakeholders. Chair of the

**“The ten-year plan is a critical next-step that must include broad-based conversion to become the gluing mechanism between water and sanitation roleplayers towards collective implementation.”**

Portfolio Committee on Water and Sanitation, Mlungisi Johnson, expressed the hope that this conversation would also extend to the communities of South Africa.

The opening speeches by the ministers of DWS and CoGTA set the tone for what was by many considered an honest, ‘no holds barred’ discussion. Minister Mokonyane made it clear that this was a water and sanitation summit and not a departmental summit, and that successful water and sanitation service delivery and management in South Africa was dependent on the entire water family working together.

“Transformation and de-racialisation of South Africa through the provision of water and sanitation should be fast-tracked,” she noted. “For us to contribute meaningfully to the realisation of the National Development Plan objectives and the electoral mandate, we have to do things differently. In finding

solutions to the current challenges, this calls for our collective wisdom.”

National, provincial and municipal cooperation needed to take a leap forward to realise an improved level of service delivery including quality and cost-effectiveness, noted minister Gordhan during his address. He introduced the ‘back to basics’ approach for municipalities, which entails a responsibility by CoGTA to build a system of local governance, which was a long-term project, as well as dealing with immediate operational difficulties within local government.

“The back to basics approach is about setting clear benchmarks of performance in our efforts to ensure that all municipalities perform their basic responsibilities, every day, without fail. We are saying, forget about the fancy stuff, just make sure you do the basics right,” noted Gordhan. This would include focusing on the delivery of a basket of services, such as water, sanitation and electricity; ensuring proper governance of local government as well as sound administration and financial management while considering the view of constituents through substantive community participation and engagements.

A significant announcement by the two ministers was that municipalities will henceforth have to allocated a minimum of 7% of their annual budgets to infrastructure maintenance. Five-year planning budgets will also be extended to ten years.



*The team from the WRC and DWS putting the final touches on the Summit declaration.*

## NEED FOR A NEW CONVERSATION

The need for a renewed conversation around water has never more pertinent judging by the state of the country's water resources as presented by DWS during the summit. As a result of the country's nature climatic variability and general water scarcity, South Africa's water engineers have become extremely adept at moving water from surplus areas to where it is needed, and the country's boasts one of the most complex and sophisticated water supply networks in the world.

To carry the country through long periods of drought hundreds of large dams have been constructed. Maintaining this infrastructure while enhancing service delivery is crucial. "The development and management of South Africa's water resources is fundamental to the provision of acceptable and adequate water and sanitation services," notes Dr Paul Roberts of the South African National Committee on Large Dams (SANCOLD).

"Maintenance of existing infrastructure, working more effectively with existing resources and the development of new resources are keystones to keeping taps running. Both quantity and quality of the resource are of importance. We are aware that many of our river systems have reached full development and this will require increasing and more complex water resource initiatives than those in the past."

In his keynote address, premier

Mahumapelo outlined the challenge of municipal revenue and the need for improved monitoring to ensure that there is compliance and adherence to the law by the mining industry, in particular. He listed several recommendations for the way forward. This included the possibility of centralising water and sanitation functions, the need for better communication channels between communities and government, particularly local authorities and their constituents, as well as the need for more partnership between government and the private sector, among others.

## POLICY ENVIRONMENT

During his keynote address on 'radically transforming water and sanitation policy', Anil Singh, Deputy Director-General of DWS emphasised that South Africa's water policies take into account both national and international policies, such as the United National Millennium Development Goals, but that development must increase freedom. "The marginalised and vulnerable must benefit from policies, instead of having policies that just affirm the affluence of the rich."

This echoed the DWS minister's sentiments that "it cannot be right for a Ma-Dlamini or Rra-Mokgothu to continue to battle the elements in order to satisfy the basic needs of any human being, these being access to safe and sustainable water and dignified sanitation."

Singh also reiterated that the national water policy review was complete, and that in order to shape game changers to enable us to achieve the National Development Plan 2030 vision and goals, we need to redress imbalances in the form of ownership and user rights through water allocation reform.

## SKILLS AND CAPACITY BUILDING

Top of the list to overcoming South Africa's water challenges is the critical need for especially technical capacity in the government sector, according to organisations such as SAICE and SANCOLD.

Dr Herold proposes various initiatives to achieve this, including encouraging mentorship of young engineers and addressing funding gaps, among others. "Survival over the next decade or two requires that we concentrate our limited technical expertise on doing the essentials."

For Naidoo, accelerating capacity building is but one of the 'game changers' required to move the sector forward. "Firstly, we require a much stronger injection of research, science, technology and innovation to support interventions. Secondly, we need a different kind of approach to community participation throughout the value chain from decision-making through to implementation and, most importantly,



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The breakaway session on municipal service delivery was particularly well attended.





aftercare and stewardship around interventions to make these sustainable.”

He agrees that novel and innovative mechanisms will have to be found to fund both service delivery and infrastructure development.

## ROLE OF THE PRIVATE SECTOR

**W**hat is the role of the private sector in overcoming these challenges? There was general consensus during the summit breakaway discussions that the private sector can perform various roles in the water and sanitation sector, ranging from water use, to water and sanitation service provision to finalisation, as well as in all phases of the infrastructure lifecycle.

While capacity certainly exists within the private sector to aid government in meeting water service delivery requirements, there is the question of how the sector is to be compensated, notes TCTA's Richard Holden, a topic he feels was not discussed adequately at the summit. The dependency of especially local government on, for example, consultants, also requires critical debate, in his opinion.

In addition to the participation of the private sector, CSIR Natural Resources and the Environment Executive Director,

May Hermanus, also sees a clear role for science and research. “[Organisations such as] the CSIR, are well placed to address the research and development aspects of water challenges, and provide the information communication technology and other platforms or facilities to address large-scale problems,” she told *the Water Wheel*. “I think more could be done to transfer research outcomes which have implications for practice to service providers. This would entail more collaboration (which is resourced) between science councils and the institutions which train service providers.”

## NOT FORGETTING SANITATION

**S**anitation, which has prominently been added to the DWS portfolio also requires attention. For Prof Chris Buckley, head of the Pollution Research Group at the University of KwaZulu-Natal, the delays in administrative procedures are an area for concern, especially considering the large number (and concentrations) of people currently unserved.

“The circular interaction between water resource development, water supply, sanitation (and treatment) and back to the resource is critical. Human excreta needs to be seen as a resource to be exploited, not

as an embarrassment to be discreetly hidden, treated and discharged. This requires a new way of thinking, political engagement and leadership, technical expertise and implementation.”

Prof Buckley notes that the sanitation ladder has an aspirational driver. “Thus, more attention needs to be placed on the target of the aspiration – the icons of fashion in film, television and glossy magazines. Until upper class homes have, for example, well serviced and functioning porcelain urine diversion toilet pedestals, such modern sanitation systems will only be seen as a temporary measure for marginalised people. Thus there needs to be more leadership by example.”

## TEN-YEAR PLAN

**T**he National Water Summit declaration has at its core the development of a water and sanitation ten-year plan. According to Naidoo, this is a crucial instrument in taking the conversation forward. “The ten-year plan is a critical next-step that must include broad-based conversion to become the gluing mechanism between water and sanitation roleplayers towards collective implementation.”

The WRC CEO sees a clear role for the Commission in developing out the plan. “The WRC must convene and bring to bear the contribution of the science and technology community in producing the catalytic effects that we want in order to generate the desired progress within the sector, such as the diversity of sanitation solutions, improved on-site treatment solutions and other innovations.”

Naidoo has a special word of thanks for minister Mokonyane who, together with DWS Deputy Minister, Pamela Tshwete, provided the space for this conversation around South Africa's water to happen. “Not only was the minister's drive and desire for a better water sector very contagious, but her ability to enthuse a whole new investment in South Africa's water future cannot be underestimated.”

It is hoped that the Summit is the start of long and fruit collaboration by all in the sector ensure a water-successful future for South Africa. □



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Department of Water and Sanitation Acting Director-General, Trevor Balzer, with COGTA Minister, Pravin Gordhan.