



LETTERS TO THE EDITOR

Flush toilets not ideal for SA

I read with interest that the International Year of Sanitation and AMCOW both regard a flush toilet leading to a septic tank or disposal system as the standard. Why do we blindly accept the wet Europe idea of the water closet in a drought-ridden country?

Whatever happened to the idea of separating the poisonous mix of urine and faeces instead of diluting it? What happened to all the good ideas of the alternative and whole earth societies of the 1960s and 1970s; sawdust toilet buckets, untreated toilet paper etc?

If everyone has a flush toilet will there be enough water left to drink or wash your hands with? Or will we have to adopt the Bedouin custom of eating with your right hand and performing ablutions – using desert sand – with your left?

Ben Dekker, Port St Johns

Water figures incorrect

The article on water conservation (Water & Energy Join Hands to Avert Future Crisis) in the *Water Wheel* May/June 2008 refers. We would like to point out an error in the water figures quoted in the article. Wherever Mℓ/year is reflected this should read million cubic metres a year i.e. 325 Mℓ/year should read 325 million cubic metres per year, 50 Mℓ/year should read 50 cubic metres per year and 3 Mℓ/year should read 3 million cubic metres per year.

Nandha Govender, Water Procurement Manager, Eskom

VIPs – there is a way

The article on basic sanitation in the *Water Wheel* May/June 2008 ('On-site Sanitation Challenges Tackled through Research') refers. Since 1985, I have supplied and erected over 4 000 VIP toilets. Some of these have been used in high density informal settlements, such as Bloekombos and Somerset West in Cape Town. I have the following comments regarding the article:

Far too much emphasis is placed by municipalities and other organisations on the superstructure with the result that too much money is spent above ground, which translates to less toilets through budgetary constraints, which ultimately ends with too many people per toilet. The Cape Town Municipality at present has upwards 50 people per toilet! The function is to provide some form of privacy.

Look at the background of the photo on p34. Do you need an immovable, aesthetically beautiful toilet, which 50 people use, among the iron and plastic sacks? Ask any one of the end consumers whether they would prefer their own DIY toilet to sharing a concrete unit with 50 other people.

Sannitree's experience has proved that by far the most successful methodology of servicing a high density informal settlement is as follows: Each dweller receives two concrete steel-reinforced slabs which have a hole to receive a funnel-type seat and a 100 mm pipe; two pit liners either weld mesh wrapped in shade cloth or plastic; a plastic funnel-shaped seat that can be easily removed for cleaning; a 2,4 m black 110 mm conduit pipe and fly trap; a galvanised skeleton frame and door for the superstructure which he clads himself; and a 600 mm by 600 mm paving slab.

Every six months the dweller simply unbolts the four securing brackets and moves the toilet to the second pit, placing the slab over the first pit that receives the toilet seat. The whole kit should not cost more than R500 delivered on site. This means five units would be erected for the price of one concrete type and at a fraction of the time. The reasons for expensive and frequent pump-outs are as follows: a) budgetary constraints reduce the quantity of toilets resulting in overloading. Since the bacteria cannot keep pace with the volume of faeces, pump outs will be frequent. This will increase

malodours and b) because pit toilets are a natural breeding ground for flies, people panic when they see white worm-like larvae (maggots) and they use anti-bacterial fluids, chlorine or sheep dip to eradicate the problem.

A new product has been developed by our parent company for use in pit toilets which offers the benefits of rapid decomposition and a reduction in fly population. Two pits, 1,6 m deep, with a diameter of 900 mm will last a family of eight at least ten years without costly pump-outs.

Mike Mayne, Sannitree, Muizenberg
(Letter has been edited – Ed.)

Dam feature more than just aesthetic add-on

I was interested to read the article you published in the *Water Wheel* in May/June 2008 on the Hartbeespoort Dam.

The late Doug Hooper and I were involved in the design of the raising of the Hartbeespoort Dam in the late 1960s/early 1970s.

It might interest your readers that the miniature 'Arc de Triomphe' on the western side of the dam wall has a structural function and it is not purely an aesthetic embellishment. The spillway trough of the side channel spillway is located on the left (western) bank and the arch ends at this point. Normally an arch dam has contact with both flanks of the valley to distribute the water and other loads.

The original designers overcame this problem of supporting the 'free standing' upper portion of the arch on the left flank by the construction of the Arc de Triomphe. This solid addition adds additional weight to the left flank, thus ensuring stability of the arched dam wall.

Paul Roberts, Pretoria



Letters must be addressed to The Editor and can be faxed to (012) 331-2565 or E-mailed to laniv@wrc.org.za. Letters are published at the editor's discretion, and may be edited for length. Letters are strictly the opinion of the author(s) only and do not necessarily reflect the considered opinions of the members of the *Water Wheel* or the WRC.

Editor's Note: Preserving our water heritage

Regular readers of *the Water Wheel* will notice that we have introduced a new regular feature to our magazine. The Water History section will explore the past, taking a peak into the development and construction of some of South Africa's most impressive bulk water infrastructure. Our first feature in the May/June 2008 issue on the history of the Hartbeespoort Dam – still a major tourist attraction (and these days property development hub) despite its history of environmental problems – drew extensive and overwhelmingly positive response.

Water enthusiasts will know what a rich history the South African water sector has. Our engineers have designed and constructed some of the most impressive water infrastructure in the world. The Department of Water Affairs & Forestry counts around 30 dams with a full supply capacity of more than 170 million m³,

among them well known names such as Gariiep, Vanderkloof, Sterkfontein, Pongolapoort, Bloemhof, Midmar, and Loskop dams. Each of these dams has a story to tell. While these stories are not always positive, it is important that we preserve them so as to learn from the valuable lessons they have to share.

Unfortunately, among the sector's other challenges, this wonderful institutional memory is disappearing fast. How many young people will know that the Lesotho Highlands Water Project was the brain child of engineer Ninham Shand or that the Gariiep Dam was once named Hendrik Verwoerd Dam, after the so-called 'father of apartheid'?

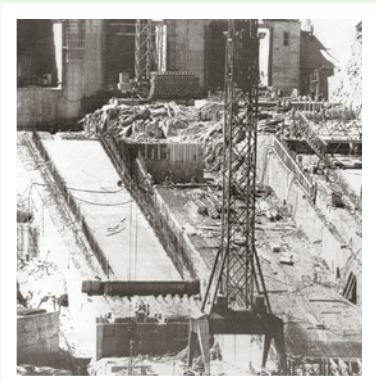
The Water Wheel would like to call on our readers, many who have been part of these infrastructure projects, to help us preserve our water past. Please share your stories and your photographs with us. No tale

is too small or too insignificant to tell. Help us remember the great dam builders of our past and to build a strong foundation for the future of our water sector.

To contribute to our Water History feature, write to the Editor, Private Bag X03, Gezina, 0031, or E-mail: laniv@wrc.org.za or Fax: (012) 331-2565.

(All sources will be credited and hard copy photographic material will be returned.)

The Gariiep Dam (formerly known as Hendrik Verwoerd Dam) during construction in the 1970s



Looking for an All-Rounder?

For all round reliable performance, from irrigation and boreholes to mining and chemical applications, Denorco's range of Orbit pumps can do it all.

The Orbit range includes:

- Industrial Helical Rotor Pumps
- Positive Displacement and Horizontal Helical Rotor Pumps
- Positive Displacement Borehole Pumps

For trusted brands, excellent service and advice, contact us for an engineered pumping solution.



13 Engwena Road, Sebenza, Edenvale, 1610, South Africa Tel: +27 11 609-4150
Customer Care: +27 11 723-6617 info@denorco.com www.denorco.com

Branches: Bloemfontein: +27 51 434-1565, Cape Town: +27 21 949-5458, Durban: +27 31 700-4160,
Depot - Port Elizabeth: +27 41 487-2866, Export Division: +27 11 609-4150

Orbit Pumps Botswana (Pty) Ltd: +267 397-4926