

New York **2003 – INTERNATIONAL** **YEAR OF FRESHWATER**

The United Nations General Assembly proclaimed the year 2003 as the International Year of Freshwater.

The resolution - 55/196 - adopted on 20 December 2000, was initiated by the Government of Tajikistan and supported by 148 other countries. It encourages governments, the United Nations system and all other role players to take advantage of the Year to increase awareness of the importance of sustainable freshwater use, management and protection.

The International Year of Freshwater provides an opportunity to accelerate the implementation of the principles of integrated water resources management. The year will be used as a platform for promoting existing activities and spearheading new initiatives in water resources at the international, regional and national levels.

Contact: International Year of Freshwater Secretariat. E-mail: wateryear2003@unesco.org Webpage: <http://www.wateryear2003.org>

RUSTENBURG - The North West Water Supply Authority has a new name. It is now called Botshelo Water which means "Life". Botshelo Water is responsible for about 50 000 km² (42 per cent of the North West Province) which covers parts of Bophirima, Central and Bojanala Platinum District Municipalities. A total of 680 000 people are being served either from water treatment works in urban areas and some 2 300 boreholes in 498 rural villages.

CAPE TOWN - The City of Cape Town reduced water losses to 12,8 per cent of bulk supply over the past financial year. Traditionally, unaccounted water is calculated at 18 per cent of bulk supply. The City of Cape Town supplies 10,5 million kilolitres of water that is not metered to more than 90 000 informal households.

Engineering **BKS APPOINTS NEW MD**



Mr Bob Pullen, president of the Engineering Council of South Africa, and prominent water engineering specialist, has been appointed as the new managing director of BKS (Pty) Ltd from 1 October 2002. He fills the position of retiring MD Mr Johann du Plessis.

BKS is one of the largest consulting engineering and management companies in South Africa.

Pullen, formerly head of BKS' water division, has been with the company for 18 years. His professional expertise is water resource and environmental development and management, where he has been primarily concerned with engineering hydrology, water resource evaluation, planning and management of water resources, environmental assessments, impact evaluations and management plans and flood management policies.

He was technical editor of an official authoritative book on the management of water resources in South Africa. He was also a member of several specialist teams preparing a flood management policy, an irrigation policy and a policy on integrated water resource management for South Africa.

Pullen is the author of numerous professional publications and a regular participant in international conferences. In 2001 he received the SAICE Gold Medal, the engineering institution's highest award, an honour that has only been bestowed on 16 individuals since its inception in 1953.

Pullen, who is serving a second term as president of ECSA, is also an honorary fellow of the South African Institute of Civil Engineers and a fellow of the South African Engineering Academy.

Contact: BKS (Pty) Ltd, PO Box 3173, Pretoria 0001. Tel: (012) 421-3500.

Groundwater

SABS 0299-SERIES - PART 1: THE LOCATION AND SITING OF WATER BOREHOLES

The distribution of water on planet earth is highly uneven, with most of it (97,4 per cent) being in the oceans and only a small fraction (2,6 per cent) on land. Even this small fraction is not directly available, being on land in the form of ice, snow or groundwater. In fact, only a tiny amount (0,014 per cent) of the earth's total water is readily available to humans and other organisms in the form of lakes, rivers and streams, soil moisture and water in the atmosphere.

Put another way, the importance of groundwater cannot be overemphasised, as it represents 97 per cent of all the available freshwater supplies on Earth. According to a study commissioned by the Department of Water Affairs and Forestry, the total estimated yearly groundwater use of approximately 3 600 million cubic metres in South Africa accounts for 58 per cent of the total quantity of groundwater (6 200 million cubic metres) available for exploitation and development in this country. This percentage takes into account the requirements of the ecological reserve and basic human needs reserve, as defined in the National Water Act (Act No. 36, 1998).

Under these circumstances, ensuring the sustainable use of groundwater is therefore an important priority for South Africa, and something the SABS 0299 series of standards developed under the mutual title of *Development, maintenance and management of ground water resources* makes a significant contribution towards. The latest in this series is **Part 1: The location and siting of water boreholes**.

"The SABS 0299 set of standards brings together, for the first time, a synthesis of all the key elements associated with the use of groundwater in South Africa. It provides both the prospective and the existing groundwater user with a guide and easy reference to the best practices in this field", said Phil Hobbs, a well-known groundwater consultant and member of the technical committee.

"Whilst the set of standards provide the prospective borehole owner with a reference framework within which the necessary services can be secured and evaluated with confidence, more importantly, it also promotes the responsible development and sus-

tainable use of this resource," he continued.

"Anyone contemplating the sinking of a water supply borehole, even drilling contractors, will benefit from the information provided in SABS 0299-1" Hobbs continued. "The standard informs the prospective owner about important factors that need to be considered when deciding on the location of a proposed production borehole: factors that, if ignored, could result in the borehole being condemned for use after the considerable expense of drilling.

"Deciding on the position of a borehole is, however, only the first step to owning a successful borehole. The other parts of the standard each address a specific milestone along this path, and are therefore equally significant in their contribution toward the sustainable use of groundwater" he concluded.

All told, there are nine parts of the standard, five of which are currently in preparation. The titles of the individual parts (those in preparation are indicated by asterisks) are:

- **Part 0:** Glossary of terms*
- **Part 1:** The location and siting of water boreholes
- **Part 2:** The design, construction and drilling of boreholes*
- (There is no Part 3)
- **Part 4:** Test-pumping of water boreholes
- **Part 5:** The design, selection and performance of pumping equipment for water boreholes
- **Part 6:** The installation and commissioning of pumping equipment for production boreholes
- **Part 7:** The rehabilitation of water boreholes*
- **Part 8:** The management of water boreholes*, and
- **Part 9:** The decommissioning of water boreholes*.

To purchase Parts 1, 4, 5, or 6 of the standard, please contact Magda Timmerman by telephone on (012) 428-6198, fax on (012) 428-6928 or email at timmermm@sabs.co.za

For technical enquiries, please contact Solly Pteryb telephone on (012) 428-6175 fax on (012) 428-6368 or email at peterm@sabs.co.za.

WHO THE WORLD HEALTH REPORT 2002 REDUCING RISKS, PROMOTING A HEALTHY LIFE

The World Health Report 2002 represents one of the largest research projects ever undertaken by the WHO, in collaboration with experts worldwide.

The report quantifies some of the most important risks to human health and examines a range of methods to reduce them. The ultimate goal is to help governments of all countries to lower major risks to health, and thereby raise the healthy life expectancy of their populations.

According to the report, at the same time that there are 170 million children in poor countries who are underweight - and up to six million of them die each year as a result - there are more than one billion adults worldwide who are overweight, and at least 300 million who are clinically obese.

Underweight is most prevalent among children under five years of age, and WHO estimates that approximately 27 per cent of children in this age group are underweight. It was a contributing factor in 60 per cent of all child deaths in developing countries.

The report says HIV/AIDS is now the world's fourth biggest cause of death. Current estimates suggest that more than 99 per cent of the HIV infections prevalent in Africa in 2001 are attributable to unsafe sex. In the rest of the world, the 2001 estimates for the proportion of HIV/AIDS deaths attributable to unsafe sex range from 13 per cent in East Asia and the Pacific to 94 per cent of the deaths in Central America.

About two million deaths a year worldwide are attributed to unsafe water, sanitation and hygiene,

mainly through infectious diarrhoea. Nine out of 10 such deaths are in children, and virtually all the deaths are in developing countries.

Iron deficiency is one of the most prevalent nutrient deficiencies in the world, affecting an estimated two billion people, and causing almost a million deaths a year.

Globally, indoor air pollution is estimated to cause 36 per cent of all lower respiratory infections, 28 per cent of chronic obstructive pulmonary disease, 22 per cent of tuberculosis, 11 per cent of asthma and about 3 per cent of lung cancers.

The report shows that obesity is killing about 220 000 men and women a year in the United States of America and Canada alone, and about 320 000 in 20 countries of Western Europe.

The report traces the rapid evolution of the tobacco epidemic by showing that the estimated number of attributable deaths in the year 2000 - 4.2 million - is about 45 per cent greater than what it was in 1990, with the increase most marked in developing countries. Worldwide alcohol caused 1.7 million deaths and loss of 56 million disability-adjusted life years. Alcohol is estimated to cause globally, 20 to 30 per cent of oesophageal cancer, liver cancer, cirrhosis of the liver, homicide, epilepsy, motor vehicle accidents, and other intentional injuries.

To order a copy of the report write to **WHO Marketing & Dissemination**, CH-1211, Geneva 27, Switzerland. Tel: +41 22 791 24 76. Fax: +41 22 791 48 57. E-mail: bookorders@who.int

THE TOP 10 SELECTED RISKS TO HEALTH

- | | |
|-----------------------|--|
| 1 Underweight | 6 Unsafe water, sanitation and hygiene |
| 2 Unsafe sex | 7 Iron deficiency |
| 3 High blood pressure | 8 Indoor smoke from solid fuels |
| 4 Tobacco consumption | 9 High cholesterol |
| 5 Alcohol consumption | 10 Obesity |

Water Management OPPORTUNITY FOR STUDENTS

The Department of Civil Engineering and the School of Geography, Politics and Sociology of the University of Newcastle-upon-Tyne is looking to receive applications for a studentship at the PhD level. The student will carry out research on the mechanisms generating second order water scarcity in Southern Africa under the supervision of Dr Julie Trottier, and will also work under the field supervision of Tony Turton at the University of Pretoria. The studentship is tenable for three years and includes flight tickets to the UK. The student will need to spend some time in the UK at the University of Newcastle-upon-Tyne, but most of his/her time will be spent carrying out research in South Africa. The student will be able to enrol in post-graduate courses at Newcastle to complement his/her research training so as to work efficiently on the project.

Applicants with an undergraduate degree or a Master's degree in any field are welcome to apply. Applications from those with a background in sociology, politics, human geography or development are especially encouraged. An interest in the social management of water is necessary. Experience in water management in South Africa, in water legislation in South Africa, in participatory research skills or in field work in rural or urban areas of South Africa will be an asset.

Interested candidates are welcome to contact Dr Julie Trottier to discuss the position and overall research project. Her e-mail address is: julie.trottier@eci.ox.ac.uk

AUSTRALIA - A groundwater levy of \$0.02/kℓ is suggested in a study by the Western Australian Division of the Australian Academy of Technological Sciences and Engineering as a funding source for needed research and investigation to ensure sustainability of Perth's underground water supplies. The report says quite a bit more - including championing reuse, becoming WaterWise, considering alternatives such as desalination, water trading and catchment clearing - free report (8pp): <http://tinyurl.com/17a>

WISA REVIVAL OF NUTRIENT REMOVAL DIVISION

WISA members have indicated that there is interest in the revival of the Institute's Nutrient Removal Division. According to an announcement, it has however been suggested to widen the scope of the Division to cover nutrient management rather than focusing only on nutrient removal in wastewater treatment.

Examples of areas that would then also fall within the mission statement of the expanded Division would be nitrogen separation at source e.g. toilets, physical management techniques such as re-designed dam walls, curtailing of nitrogen run-off from small-scale farm projects e.g. along the Olifants River, etc.

We would once again like to get responses from members who are interested in getting involved in the broader Nutrient Management Division. Ideas on the objectives and scope of the Division are also welcome. Members interested in becoming Committee members of the newly broadened Division should also indicate their intentions.

Interested members should send their responses to:

*Dr Eustina Musvoto
Ninham Shand Consulting Services
Private Bag X136
Centurion 0046
Fax 012 663 3257
Email: eustina.musvoto@shands.co.za*

Or

*Dot Zandberg
conference@wisa.co.za*

