



# Look to nature to solve city's pressing water woes

HARVESTING icebergs and learning from forests on how to run a city were offered as solutions to Cape Town's water woes yesterday at a power and water utility conference in the city.

Salvage expert Nick Sloane addressed delegates at the African Utility Week conference during a keynote session where solutions from nature were explored to address increasing energy and water constraints.

"It sounds like a crazy idea but if we break it down, it is not so crazy after all," he said.

Sloane started his address after the director of Water and Sanitation in the City of Cape Town Peter Flower's presentation on the water crisis in the city on Tuesday.

Flower told delegates the city still needs to reduce consumption to 450 million litres of water a day to keep Day Zero at bay.

With the usage at 500 million litres a day, the situation remains dire despite



**COOL IDEA:** Harvesting icebergs has been offered as a solution to Cape Town's water problem.

*Picture: Reuters*

measures employed by the City to reduce consumption.

Captain Sloane said the answer may be in "Mother Nature's icebergs" – a total of 140 000 icebergs to be specific – drifting in the southern oceans and melting. Harvesting icebergs, he said,

can help provide at least 20% of Cape Town's water needs. He told delegates icebergs break off in Antarctica and hold some of the purest quality water that is between 15 000 and 20 000 years old.

"About 2 000 million tons of ice are

breaking off every year," he said.

The idea is to use the current system to guide these icebergs towards the Cape.

"So, they are coming our way, we just need to know how to deal with it."

Sloane said the iceberg can be captured in the area round Gough Island and will have to be guided and moored about 40km offshore from St Helena Island to be harvested. He said they will then have to "create a saucer to capture the melting water that can deliver up to 60 million litres a day".

With milling, this volume can increase to 150 million litres a day that is then pumped into tankers and ferried to land where it will be treated before it goes into the water system.

"So, with four to six of these tankers 150 million litres can be harvested a day for one year."

Sloane said this is something that can be viable. "Can it be achieved? Well we are looking into it."

Director of Biomimicry SA Claire Janisch also shared case studies on how nature's "wisdom can be copied" to help with the increasing pressure on and challenges with natural resources.

"Solutions to our problems already exist in nature," she said. "We can improve our physical world by following nature's example."

One example is emulating the humpback whale's attack manoeuvre in wind turbines to increase efficiency and learning about desalination through the example of the mangrove trees that use seawater to survive.

Janisch told delegates humankind can learn from termites on how to design buildings with efficient energy use for air-conditioning.

She referred to the Eastgate building in Harare, Zimbabwe, that is built on the model of termite nests that mimic the self-cooling nature of these nests.

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