

NATIONAL

Could a 'schlep-an-iceberg' venture be a solution to Cape Town's drought?

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An iceberg is pictured in the western Antarctic peninsula. Picture: AFP PHOTO/EITAN ABRAMO

It is a plan as crazy as the situation is desperate — towing an iceberg from Antarctica to Cape Town to supply fresh water to a city in the grip of drought.

Earlier in 2018, Cape Town came within weeks of shutting off all its taps and forcing residents to queue for water rations at public standpipes.

The cut-off was narrowly averted as people scrambled to reduce their water usage and Autumn rains saved the day. But the threat is expected to return to the city again in 2019 and beyond.

"The idea sounds crazy," admits maverick salvage expert Nick Sloane, the brains behind the tow-an-iceberg scheme. "But if you look at the fine details, it is not so crazy."

Sloane suggests wrapping the iceberg in a textile insulation skirt to stop it melting and using a supertanker and two tugboats to drag it 2,000km towards Cape Town using prevailing ocean currents.

The iceberg, carefully selected by drones and radiography scans, would be about 1km in length, 500m across and up to 250m deep, with a flat, tabletop surface.

Melted water could be gathered each day using collection channels and a milling machine to create ice slurry — producing 150-million litres of usable water every day for a year.

Sloane's idea might be dismissed as mere fantasy, but the Zambian-South African has a reputation for taking on the impossible after he re-floated the giant Costa Concordia cruise ship that capsized in 2012 off the Tuscan island of Giglio, killing 32 people — one of the world's largest and most complex maritime salvage operations.

"Icebergs are made of the purest freshwater on earth," Sloane said.

"Thousands break off every year. Mother Nature has been teasing mankind with this for a long time, saying 'this is here'."

He estimates it would cost \$100m to haul an iceberg on a journey that could take up to three months, and another \$50m-\$60m to harvest the water for one year as it melts.

"In Russia, they have pushed [icebergs] away from oil installations — but small ones, they are about half-a-million tonnes. [Here] we are talking about 100-million tonnes," said Sloane.

To tackle the drought, Cape Town has enacted measures ranging from building seawater desalination plants to issuing strict instructions to only flush toilets when necessary.

But whether Cape Town authorities will be persuaded to embrace the iceberg project is unclear.

"At this stage it appears to us that, in fact, the groundwater or desalination options are cheaper or at least equal cost price," Cape Town deputy mayor Ian Neilson said.

There are also questions on how the water from the iceberg will be channelled into the city's distribution system.

Another problem is that there is no guarantee that by the time the iceberg is hauled to Cape Town, it will still be able to produce the promised volumes of water. Sloane's plan is to tow the giant iceberg about 150 km further north to St Helena Bay, where the cold Benguela Current keeps water at about 0°C. Once there, the iceberg could be anchored in an old submarine channel, suggests Sloane.

As the iceberg melts, water will be collected each day, pumped into tankers and driven to Cape Town.

"It won't sort out Cape Town's crisis, [but] it will be about 20% to 30% of their annual needs," said Sloane.

"The project is crazy — no question," said Olav Orheim, a Norwegian glaciologist with four decades of experience who is working on a similar project for Saudi Arabia.

Never has such a large iceberg been towed — indeed, the towing of ice to supply drinking water would be a first — and it is unknown if it would withstand ocean currents or simply fracture in transit. But, said Orheim, it was no longer unrealistic "because we know so much more now than when we started this kind of research 40 years ago".

"It is a high risk project, but also [one] which may have a very high reward at the end," said Orheim. **For Wolfgang Foerg, the CEO of Swiss company Water Vision, which has teamed up with Sloane, the project has huge potential in the face of ever more frequent drought.**

As for Sloane, he is ready for the green light. "If they tell us to go now, we can have it here by Easter," he said.