

Communication and Marketing Department Isebe loThungelwano neNtengiso Kommunikasie en Bemarkingsdepartement

Private Bag X3, Rondebosch 7701, South Africa Welgelegen House, Chapel Road Extension, Rosebank, Cape Town Tel: +27 (0) 21 650 5427/5428/5674 Fax: +27 (0) 21 650 5628

www.uct.ac.za

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## UCT researchers expose political interference and denial in urban water contamination study

## Groundbreaking multi-university study calls for transparency, accountability and overhaul of Cape Town's wastewater treatment and science communications

A new peer-reviewed <u>study</u> by a team of independent researchers, led by scholars from the University of Cape Town (UCT) in collaboration with local and international institutions, has found evidence of repeated denial, interference and misrepresentation of science by the City of Cape Town (CCT) in response to long-standing contamination in the city's rivers, wetlands and coastal waters.

Based on more than a decade of multidisciplinary work, the research highlights how CCT officials have ignored or undermined independent scientific findings about serious public health risks, despite extensive evidence of raw and poorly treated sewage entering urban water bodies and coastal zones.

"Our goal has been to bring evidence of contaminants to the attention of officials responsible for a clean environment," said the study's lead author from UCT, Professor Lesley Green, director of Environmental Humanities South.

Cape Town discharges more than 40 megalitres of raw sewage into the Atlantic Ocean daily. In addition, run-off from informal settlements and poorly functioning wastewater plants contributes to pollution in the Indian Ocean and inland water systems. This contamination carries significant risks for human health, ecosystems and the economy.

Despite efforts to engage with authorities and the public through scientific publications, a dedicated website, public outreach and a documentary, researchers have faced sustained pushback. This includes public denouncements and online harassment. In one instance, a political party demanded an apology for laboratory findings.

The team tracked 11 years of media statements, CCT reports and political commentary. Building on international studies of science communication strategies that deflect evidence of harms, they documented 18 forms of science miscommunication in Cape Town. These include:

- Non-disclosure of test results
- Partial or misleading interpretation of findings
- Using city-commissioned science to reinforce political narratives
- Presenting point-in-time water samples as fixed and representative, despite changing ocean and river dynamics

"Instead of engaging with evidence, City officials have appropriated the authority of science for brand and political reputation management. Science is only authoritative to the extent that it is open to counter-evidence," Green explained.

The researchers call for several structural and political changes:

- End conflicts of interest in which the same municipal departments manage environmental quality and fund scientific research.
- Provide real-time data on water contamination to the public, using modern predictive modelling.
- Improve data quality current rolling averages mask peak contamination periods.
- Hold politicians accountable for public comments that misrepresent science.
- Protect scientists from reputational harm and political retaliation.
- Stop requiring science to support marketing scientific data must remain independent and open to critique.

Green said the city's wastewater treatment approach still relies on century-old models that discharge raw or poorly treated sewage into rivers, wetlands and oceans. "Both the volume of waste from a large city, and that new chemical compounds that do not break down in the open environment, makes that approach unworkable," she said. "This is a global problem and it needs all hands on deck to address it."

Researchers have worked with affected communities and partner institutions to build an evidence-based record of contamination and its social and ecological effects. They have done so in the face of denial and resistance, driven by a commitment to public science and the constitutional right to information.

"We acknowledge some recent steps by the mayoral office, including reversing the 2021 bylaw that prohibited independent water testing and releasing summer beach water quality data. This is a start, but much more needs to be done to restore public trust in science and secure clean, safe water for all Cape Town residents," Green concluded.

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Velisile Bukula Head: Media Liaison Communication and Marketing Department University of Cape Town Rondebosch Tel: 021 650 2149 Cell: 071 642 3495 Email: velisile.bukulai@uct.ac.za Website: www.uct.ac.za