



INVITATION TO A WEBINAR ON

## **WATER QUALITY AND HUMAN HEALTH: EMERGING SUBSTANCES OF CONCERN**

### **State of knowledge on Per- and Polyfluoroalkyl substances (PFAS) in water**

Date: 29 June 2023

Time: 09:00 -13:15

Registration link: [https://us02web.zoom.us/webinar/register/WN\\_6DuIZMofRSWD4N7DAsFdqw](https://us02web.zoom.us/webinar/register/WN_6DuIZMofRSWD4N7DAsFdqw)

#### **Background**

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals widely used in industrial processes, consumer products, and firefighting foams. Due to the use of products and improper disposal of wastes containing PFAS, their presence in the environment, including freshwater, treated (drinking) water and wastewater sources is a growing concern worldwide. These chemicals are highly persistent in the environment and can accumulate in biota and human bodies, causing adverse health effects. Therefore, this webinar will provide a platform for experts to share knowledge, experiences, and findings from Water Research Commission funded work on PFAS in water in South Africa. This will help in developing a better understanding of the sources, pathways, and fate of PFAS in the water cycle and their health and environmental impacts. The webinar will also identify policy recommendations for the regulation and management of PFAS in water and promote collaboration and knowledge exchange between research, and policy/practice stakeholders working on PFAS in water.

#### **Thematic areas to be covered:**

The knowledge themes to be covered during the seminar include:

- Prevalence of PFAS in freshwater, treated water and wastewater sources in South Africa
- PFAS removal and treatment technologies
- Assessing the health and environmental impacts of PFAS exposure, and the importance of environmental specimen banking
- Recommendations for water quality risk management and regulatory frameworks for PFAS in water environments
- Case studies and experiences from other regions and countries

#### **Participants:**

The webinar will bring together researchers, policy-makers, practitioners, and other stakeholders working on PFAS in water. Participants will include representatives from the government, water service institutions, academia, research institutions, civil society organizations, and the private sector.

**Expected Outputs:**

- A better understanding of the state of knowledge on PFAS in water environments
- A comprehensive review of the sources, pathways, and fate of PFAS in the water cycle
- Identification of knowledge gaps and research needs
- Policy recommendations for the regulation and management of PFAS in water and sanitation
- Enhanced collaboration and knowledge exchange among stakeholders working on PFAS in water and sanitation.

**Programme Director:**

|               |                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 09:30 – 10:00 | Registration                                                                                                                      |
| 10:00 – 10:10 | Welcome address – WRC                                                                                                             |
| 10:10 – 10:30 | The global threat of PFAS in water – Guest speaker                                                                                |
| 10:30 – 10:45 | Part I: National monitoring of PFAS in water sources in South Africa: method development and validation – WRC study               |
| 10:45 – 11:15 | Part II: National monitoring of PFAS in water sources in South Africa: sources and fate in water environments – WRC study         |
| 11:15 – 11:30 | Q&A session / short break                                                                                                         |
| 11:30 – 12:00 | Removal efficiency of PFAS in drinking water, wastewater and sludge - WRC study                                                   |
| 12:00 – 12:15 | Implementation of effect-based methods to assess water (chemical) quality & safety – WRC study                                    |
| 12:15 – 12:30 | The role of environmental specimen banks in managing environmental pollution – WRC study                                          |
|               | Policy recommendations for knowledge management and managing health risks of PFAS in water in South Africa – WRC research manager |
| 12:50 – 13:00 | Q&A session                                                                                                                       |
| 13:00 – 15:15 | <b>Closing remarks</b>                                                                                                            |

**Additional Projects for consideration:**

1. Prof MAA Coetzee - The removal of endocrine disrupting compounds by wastewater treatment plants
2. E. Mosvoto - Application of emerging low energy technologies for the removal of endocrine disrupting compounds in wastewater and wastewater sludge