ONLY FOR REGISTERED DELEGATES

THE WATER FLOW DIAGRAM (WFD):

A PARTICIPATORY TOOL FOR INTEGRATED WATER MANAGEMENT AT THE LOCAL LEVEL

ENGAGEMENT WORKSHOP AT THE IWA WATER RECLAMATION & REUSE CONFERENCE IN CTICC, SUNDAY 16 MARCH 2025, 10:00 TO 13H00

OST Eastern Switzerland University of Applied Sciences

eawag aquatic research

FUTURE WATER

VSA

WATER RESEARCH COMMISSION

UNIVERSITY OF KWAZULU-NATAL INYUVESI YAKWAZULU-NATALI

WASH R&D CENTRE Water Sanitation & Hygiene Research & Development Centre

THE WATER FLOW DIAGRAM

IS A NOVEL ADVOCACY AND COMMUNICATION TOOL THAT PRESENTS URBAN WATER SUPPLY AND MANAGEMENT IN A SIMPLE VISUALIZATION (BOUMAN ET AL. 2024).

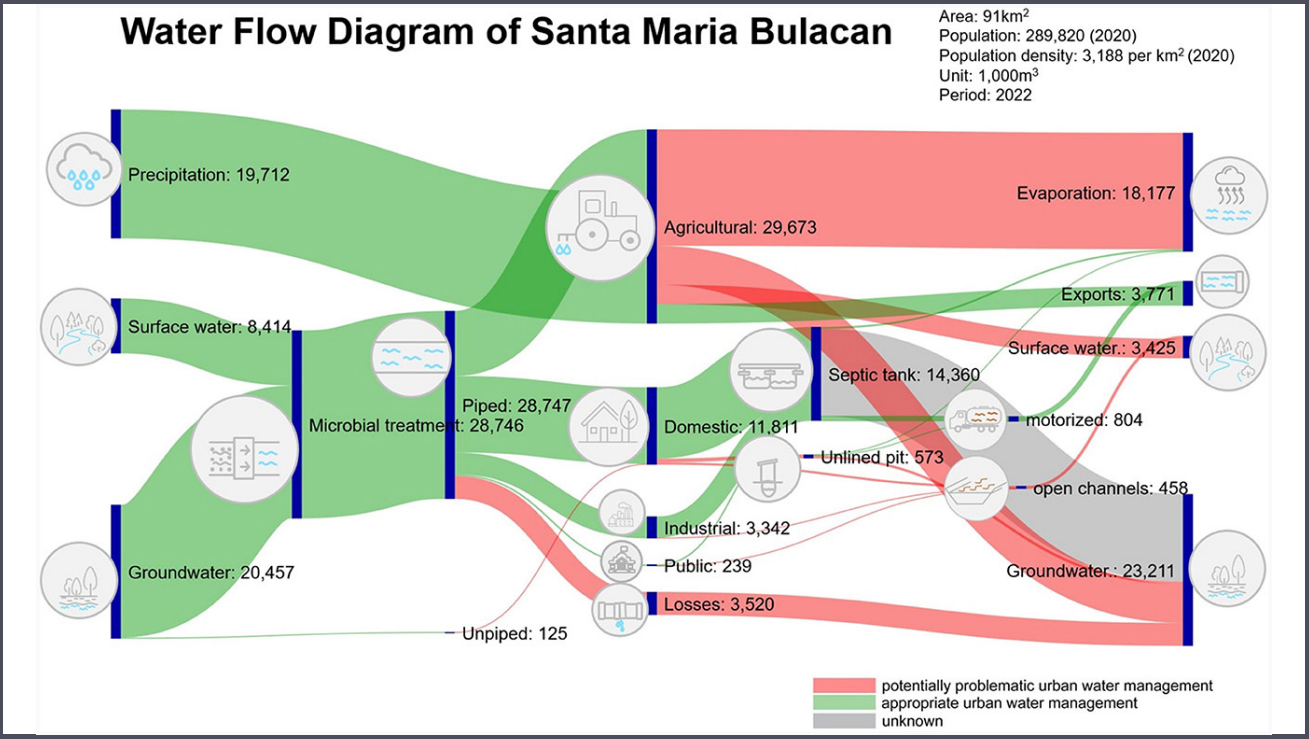

FIG.1. AN EXAMPLE OF A WFD (Source: Bouman et al. 2024). THE COLOURS DIFFERENTIATE DIFFERENCES IN URBAN WATER MANAGEMENT; APPROPRIATE, PROBLEMATIC OR UNKNOWN

The WFD has three main use cases:

1) **Capacity Development**: through participatory data collection and a simple visualisation, a broad range of actors will be enabled to increase their knowledge and understanding of the local water cycle and contribute to planning processes.
2) **Advocacy:** the WFD visualises areas of political priority in a simple format.
3) **Dialogue:** the diagram can serve as a basis for a constructive multi-stakeholder dialogue including actors from politics, the civil society and the industry.
4) **Decision support:** visualising the quantities and qualities of water allocated for different activities within a city will facilitate the identification of problematic areas or opportunities for reclamation and reuse.

Over the past 5 years, the WFD has been applied across Europe, Sub-Saharan Africa, Latin America and South-East Asia for cities of different sizes and in different climatic conditions, as well as for entire water sheds. The methodology and the participatory process around it have continuously been developed and documented. Most recently it has also been applied in combination with other flow diagrams, such as the **Shit Flow Diagram** (SFD) or the **Waste Flow Diagram**.

So far, it has never been applied in South Africa, but similar approaches have been applied or developed mainly in urban metropolitan areas of South Africa. **The expected benefits are**:

I. Increased understanding of the complex urban water system in selected cities.
II. Acceptance and commitment to action by a broad range of stakeholders.
III. Monitoring of efforts related to water reclamation and reuse, and water efficiency in the long term and under climate change.

To further explore the potential of the tool for South Africa, and to engage municipalities, researchers, and civil society in its further application and development, a workshop will be held during the International Water Association (IWA) Water Reuse and Reclamation Conference.

Depending on the demand, we could host a DIY component at the workshop. This is NOT limited to South African participants. Should you wish to know more details or how to develop a WFD for your own city, please contact us using the details below – we would require an appropriate dataset to work with and are open to assisting others. We plan to work with city examples using a methodology package available at www.sandec.ch/wfd. This workshop provides an broader vision for other components of water reuse e.g. decentralised reuse, surface water supply, etc.

The workshop will take place on **Sunday 16 March 2025, 10:00 to 13:00pm, in Room 1.4**. The aim is to:

- Present the tool and its application based on past examples.
- To present first trial applications in South Africa. **We shall present some trial applications from selected South African metros**. The purpose is not to add further administrative tasks to municipalities. Rather, it shows value in terms of planning and advocacy. From the trial applications, we shall receive open and transparent feedback.
- To discuss the added value of the process and diagram for strategic planning and its link with other diagrams.

1.1 Agenda for workshop

TIME	ITEM DESCRIPTION	LEAD
10:00	WELCOME	NONHLANHLA KALEBAILA (WRC)
10:15	WFD – THE BASIC HOW DOES WFD ASSIST IN PLANNING? ADDING VALUE INSTEAD OF BURDEN TO PLANNING EXAMPLES OF WFDS	DOROTHEE SPUHLER (OST)
10:45	WFD IN SOUTH AFRICA WORK THROUGH EXAMPLES: - CAPE TOWN - KWAZULU NATAL: WFD DYNAMIC	PREYAN ARUMUGAM (UKZN) - LEAD KIRSTY CARDEN (UCT) RANDHIR RAWATLAL (UKZN)
12:00	OPEN DISCUSSION OR WORLD CAFÉ - WHAT DOES IT TAKE? - USEFULNESS AND APPROPRIATENESS - ADVOCACY	PREYAN ARUMUGAM (UKZN)
13:00	CLOSE & FOLLOW-UP	

1.2 Partners

- **Main contact**: Eastern Switzerland University of Applied Sciences (OST), Switzerland, Dr. Dorothee Spuhler, dorothee.spuhler@ost.ch
- Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dr. Regula Meierhofer, regula.meierhofer@eawag.ch
- Association of Swiss Wastewater and Water Protection Experts (VSA), Lukas Bouman, Lukas.bouman@vsa.ch
- Water Research Commission (WRC), Dr. Sudhir Pillay & Dr. Nonhlanhla Kalebaila sudhirp@wrc.org.za
- Future Water Institute, University of Cape Town, Prof. Dr. Kirsty Carden, kirsty.carden@uct.ac.za

IF YOU ARE INTERESTED TO JOIN THIS INITIATIVE, PLEASE CONTACT US