

Flow Tracker

**A near real-time flow
and dam monitoring app
for the Olifants River
Catchment**

Hugo Retief and Sharon Pollard



Flow Tracker for the Olifants River is the first of its kind. It enables **near real-time flow** and **dam monitoring**, and includes a **weather forecast** facility.*



*Visit <http://award.org.za/inwards/> for a demonstration, or scan the QR code to download the app



Scan me

Flow tracker is designed for use by residents to improve catchment awareness.

Rivers in crisis

– monitoring for compliance

In the Olifants River, water quality and flow are severely compromised and likely to worsen under climate change. Although South Africa has robust water-related policies with the National Water Act (1998) being applauded internationally, implementation – and especially regulation – faces many challenges. For example, although a number of benchmarks have been developed for flow or water quality, monitoring these for compliance (especially in real-time) is notoriously difficult. This is particularly true of environmental water requirements (known as the Reserve in South Africa) which are developed to ensure long-term sustainability. This is a critical issue for Integrated Water Resources Management (IWRM).*

Putting policy into practice

– safeguarding our water Reserve

The Flow Tracker mobile app is part of AWARD's work on supporting IWRM which started in the Inkomati and has now extended to the Olifants Catchment. Since the emphasis is in South Africa – and for AWARD

– has now moved from policy reform to implementation, we emphasise that one does not simply “implement the Reserve”: rather the synergistic effects of a collection of strategies together deliver the Reserve. These should be held in the catchment management strategy and include planning, water allocation, monitoring, regulation and enforcement. Given our focus on putting policy into practice for IWRM, these issues have been explored in depth by AWARD over the past decade. One issue has been how compliance monitoring can be supported in practice. Monitoring in real-time is notoriously difficult.

Thus, we work with the proto-Olifants Catchment Management Agency, the Department of Water Affairs and other stakeholders, especially water users, on issues of good governance for sustainability. Flow Tracker is designed for use by the general public as part of our efforts to support greater involvement by stakeholders in IWRM. Through its use, we hope to increase knowledge and awareness about the Olifants River.

Flow Tracker integrates data from 62 DWS gauges and 4 AWARD gauges, located across the Olifants River Catchment. This allows the end user to retrieve, chart and share near real-time data that is updated on a six-hourly basis. AWARD is currently developing a method to simulate dynamic environmental water requirements in near real-time. This will be available in the near future with the release of Flow Tracker version 2.0.

* IWRM – A process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment.

– Global Water Partnership (GWP) www.gwp.org



award

The Association for Water and Rural Development

AWARD is a non-profit organisation specialising in participatory, research-based project implementation. Their work addresses issues of sustainability, inequity and poverty by building natural-resource management competence and supporting sustainable livelihoods. One of their current projects, supported by USAID, focuses on the Olifants River and the way in which people living in South Africa and Mozambique depend on the Olifants and its contributing waterways. It aims to improve water security and resource management in support of the healthy ecosystems to sustain livelihoods and resilient economic development in the catchment.

P O Box 1919, Hoedspruit 1380, Limpopo, South Africa

T 015-793 0503 **W** award.org.za

Company Reg. No. 98/03011/08

Non-profit org. Reg. No. 006 - 821

About USAID: RESILIM-O

USAID: RESILIM-O focuses on the Olifants River Basin and the way in which people living in South Africa and Mozambique depend on the Olifants and its contributing waterways. It aims to improve water security and resource management in support of the healthy ecosystems that support livelihoods and resilient economic development in the catchment. The 5-year programme, involving the South African and Mozambican portions of the Olifants catchment, is being implemented by the Association for Water and Rural Development (AWARD) and is funded by USAID Southern Africa.

Copyright © 2018 The Association for Water and Rural Development (AWARD). This material may be used for non-profit and educational purposes. Please contact the authors in this regard:

Hugo Retief

hugo@award.org.za

Sharon Pollard

sharon@award.org.za

Acknowledgements: Project funding and support

The USAID: RESILIM-O project is funded by the U.S. Agency for International Development under USAID/Southern Africa RESILIENCE IN THE LIMPOPO BASIN PROGRAM (RESILIM). The RESILIM-O project is implemented by the Association for Water and Rural Development (AWARD), in collaboration with partners. Cooperative Agreement nr AID-674-A-13-00008



USAID
FROM THE AMERICAN PEOPLE

SOUTHERN AFRICA