

# Flow Tracker

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



**USAID** | SOUTHERN AFRICA  
FROM THE AMERICAN PEOPLE

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



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

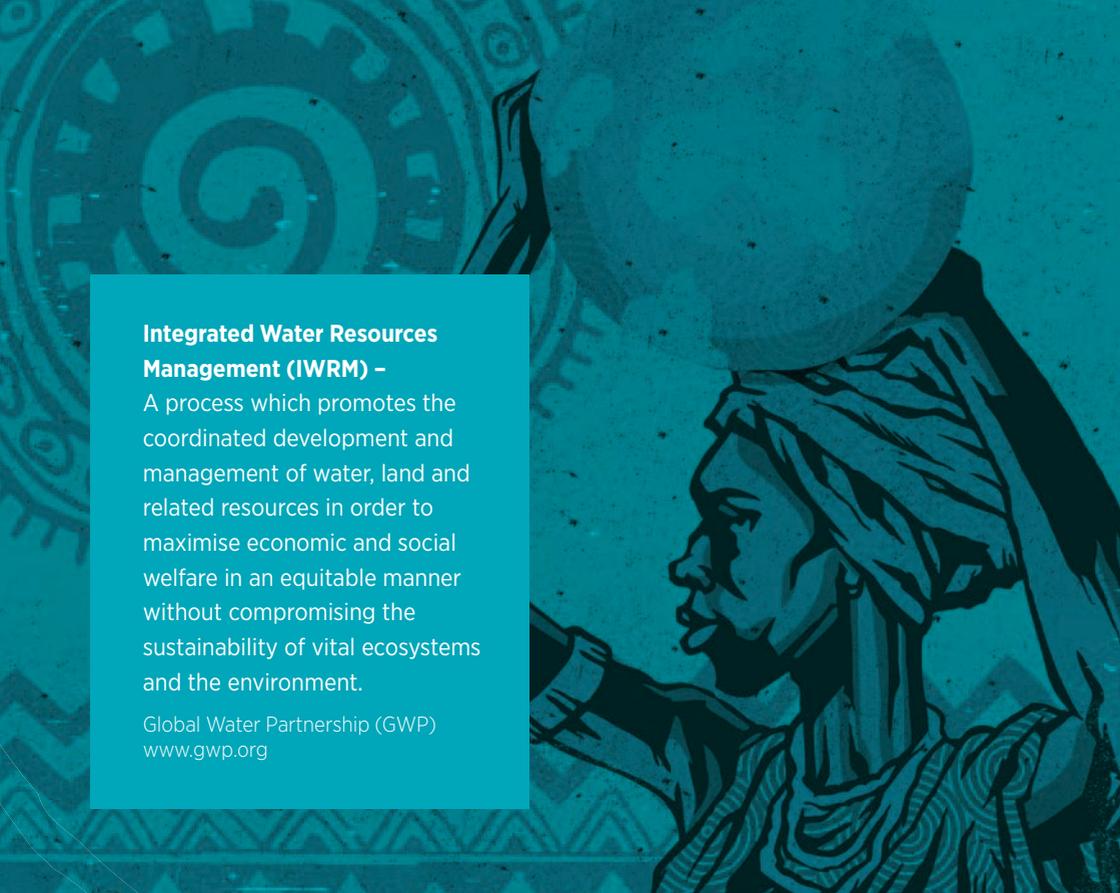
– safeguarding our water Reserve

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.



### **Integrated Water Resources Management (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](http://www.gwp.org)



# award

The Association for Water and Rural Development

## **Transforming catchments, Building resilience**

AWARD uses a range of innovative approaches to inform the development and implementation of a number of projects that build social and ecological resilience. Through these projects, we are building institutional, community and individual capacity to manage and restore water, land and biodiversity sub-systems in the context of climate change. Current areas of engagement include the upper, middle and lower Olifants catchment as well as national initiatives on water governance.

[www.award.org.za](http://www.award.org.za)