

## TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

<b>KEY STRATEGIC AREA</b>	1&2 (Water Resource Management and Ecosystems)
<b>PROGRAMME</b>	Ecological Infrastructure for Water Security
<b>TITLE</b>	Empirical and user-appropriate evidence to support DFIs and private sector investment towards managing ecological Infrastructure

### Background and rationale

The Ecological Infrastructure for Water Security Project (EI4WS) is funded by the Global Environment Facility (GEF), implemented by the Development Bank of Southern Africa (DBSA), and executed by the South African National Biodiversity Institute (SANBI), in partnership with the department of Forestry, Fisheries and the Environment (DFFE), Department of Water and Sanitation (DWS), Water Research Commission (WRC), and other implementing partners. This project focuses on improving water security by integrating biodiversity and ecosystem services into planning, finance, and development in the water sector. The project is organised into three interdependent components:

- 1. Systemic changes to better enable biodiversity and ecosystem services to contribute to improved water security,*
- 2. Demonstration of proposed approaches in the Berg-Breede and uMngeni River catchments, and*
- 3. Improving the integration of biodiversity and ecosystem services into the water value chain through social learning, credible evidence, and knowledge management.*

The Water Research Commission (WRC) is responsible for implementation of the third component, which seeks to change the way targeted public and private sector stakeholders and decision-makers engage with, think about, and integrate ecological infrastructure into water sector development planning and finance. This component draws from the knowledge generated through the other components, as well as experience external to the project, in order to support and enable the effectiveness of project interventions through social learning. The component is an essential part of the sustainability of the project, working to deepen capacity in existing organisations and networks in the water and biodiversity sectors. According to the project's Strategic Results Framework, the WRC is required to undertake activities that inform calls for proposals and/or support research and generation of evidence of the impact of project interventions of the EI4WS.

There is a body of evidence to support the argument for investing in ecological infrastructure to enhance water security. For example, there is a reasonable understanding of how the removal of Invasive Alien Plants (IAP) can improve water yield. However, many ecosystem service changes as a result of EI interventions are still difficult to quantify, as are the benefits that water users derive from these improved services. The long-term monitoring of ecological infrastructure (EI) interventions often only report on easily measured metrics like hectares cleared of IAP, and not readily on the ecosystem services that were improved because of the intervention. Thus, a persistent challenge in garnering support for this work around EI has been the absence of a user-appropriate **evidence base** for EI rehabilitation and management that confirms i) that effective EI interventions can lead to quantifiable

increases in the provision of water-related ecosystem services, and ii) that these benefits will be directly relevant to the users of water as well as having a broader public and private interest benefit.

The scarcity of appropriate and appropriately packaged evidence to demonstrate the realised value of ecological infrastructure and its role in supporting sustainable development, as well as positioning it as an important component of development finance considerations, is a significant gap that needs to be addressed urgently. As such, this call seeks to invite applicants to review and consolidate science-based evidence that exists around the value proposition of water related ecological infrastructure to DFIs and private sector. This will involve products that support effective mainstreaming of EI into the finance sector in order to unlock finance flows for water-related EI.

The main objectives of this project are thus:

- I. Document available local and international evidence linking EI investment to changes in ecosystem services provisioning by developing a suitably packaged user-appropriate evidence base.
  - a. The intended users include (but not limited to) public institutions financing water-related ecological and grey infrastructure, private sector stakeholders including corporates, development finance institutions, commercial finance, SMMEs working in this sector, etc.
- II. Test assumptions about the effectiveness of EI interventions in the water sector, including available empirical data and modelled projections
- III. Engage with identified stakeholders in sustainable development, like development finance institutions, on the potential for inclusion of EI in bankable projects

To achieve these, the project will have the following high-level activities:

- I. Review available scientific and grey literature on EI management interventions in South Africa and abroad, and the recorded environmental impacts of such interventions
- II. Sourcing and analysis of existing datasets to explore trends and outcomes of EI interventions and identify gaps in data collection and/or reporting
- III. Engage private and public sector role-players and inform on data gaps for investment in EI. The following questions to be answered:
  - a. What are the quantifiable ecosystem service returns from EI interventions, with specific relevance to private sector role-players?
  - b. What are the underlying mechanisms that could/should be utilised to catalyse public-private collaboration in its implementation?
- IV. Develop a framework that considers information needed to engage private sector
  - a. What is the business case for private sector investment in water-related EI, and what evidence is required to substantiate this business case (i.e. risk, return on investment)?
- V. Develop detailed local case studies where EI intervention projects have been implemented, where these have been successful, and where they may have been unsuccessful from a perspective of:
  - a. Improved functioning of ecosystems and provision of ecosystem services
  - b. Increased social justice as a result of EI interventions

c. Linkages to sustainable development (including financial stability)

This project intends to build on current and previous WRC projects that look at rehabilitation and effective management of water-related EI, and the potential and need for multisectoral partnerships in addressing the challenges relating to the implementation of such work. The outcomes of this project should support the country's ambitions to meet its Land Degradation Neutrality targets, as well as contribute to efforts relating to the UN's Decade on Ecosystem Restoration. Importantly, this work should address private sector perspectives on risks, return on investment, and other barriers to participation, as well as have a strong focus on collating credible, salient, and relevant evidence for the importance of managing EI as part of the wider water value chain.

Planned Project Start date: 1 April 2023

Draft final report to be submitted by: 30 April 2024

Planned Project end date: 31 August 2024

Project duration: 17 months

Total Funds available: R 800 000

Financial year 1: R510 000

Financial year 2: R290 000