



TERMS OF REFERENCE FOR A DIRECTED WRC PROJECT

THEMATIC AREA	Advisory Services
TITLE	Assessing the impact and contribution of RDI investment into Water Sensitive Design
TOR	1010082

Background and Rationale

Water Sensitive Design (WSD) is a framework for the holistic management of water and its integration into the design of the built environment. It is linked to the concepts of sustainable and integrated water management, which connects social, environmental and economic aspects and emphasizes resilient, equitable, climate resilient, climate adaptive and circular thinking.

At the heart of water sensitive design and associated nature-based solutions is the simple concept of one water cycle that needs to be integrated into all water use activities, social development and economic activity. Water Sensitive Design thus remains an optimal way of integrating smart water planning and approaches into the planning and design of the spaces that people live and work in. Given its cross-cutting dimensions it has links to water treatment, wastewater treatment, sanitation, advanced treatment, stormwater management, sustainable development, and the built-ecological infrastructure nexus. From a policy and planning perspective, it has strong connections with spatial planning, circular economy drivers, diversification of water sources, integrated smart systems, climate resilience and adaptation, and data analytics.

WSD is an alternative systems-based approach to conventional water management. The concept represents a significant shift in the way water and related environmental resources and water infrastructure are considered in the planning and design of cities, towns, peri-urban and rural settlements, at all scales and densities. It is a highly scalable concept with application to small towns and rural areas and also large cities. As a nexus concept, it brings together a powerful vision of a water secure city, town or village with water acting as the catalyst for sustainable livelihood development, economic productivity and sustainability.

Over the last 10-15 years, the Water Research Commission (WRC), working with a range of partners in the sector, has recognized the opportunity that WSD solutions and thinking presents to facilitating sustainable human settlements, service delivery and a more water secure sector in the future. It has invested into research, guideline development, capacity building and deepening specialist communities of practice in this area.

The WRC wishes to deepen and sense-check its insights into the extent to which WSD is finding roots in the water sector as well as across sectors that have a water connection, and understand the value of RDI and implementation investments into this space. This understanding also needs to be guided by comparative reflection of how well WSD is finding routes elsewhere in the world. To date, this investment has happened through a range of different projects and programmes. Efforts to understand the impact of these investments will thus be retrospective and reflective and need to take an outcome harvesting (or related) approach.

Objectives:

The purpose of this project is to undertake an impact assessment and review process which:



- 1) assesses the extent to which WSD has embedded itself within human settlements and water and sanitation services policy, planning processes, capacity development, and service delivery solutions in South Africa.
- 2) Understand the impact that investment from the research, development and innovation sector has had in catalysing the implementation of WSD in first adopter municipalities, urban planning and associated consultant networks.
- 3) Recommend research, planning and policy implementation gaps.

Scope of Work:

- Articulate an approach for assessing the extent to which WSUD, and WSUD linked projects, have embedded itself in the sector, and provide a retrospective lens to understand the value of research and innovation investments in this journey.
- Summarise the extent to which WSD is implemented in South Africa.
- Build in a comparative analysis lense that allows us to compare WSD uptake in South Africa with comparable global contexts.
- Map out what the RDI investment into WSD has been in terms of knowledge generation and transfer (research), technology upscaling, capacity development, solution development, community of practise development, and what the high level cost of this investment has been.
- Analyse what the impact of this investment has been in terms of: 1) consolidating South African research expertise in this area 2) growing skills and capacity in this area (research and sector implementation skills) 3) unlocking new WSD solutions and technologies to enter the South African market/implementation context 4) influencing policy (could be national or local level) 5) shifting behaviours within the municipal and planning environments in SA 6) cementing a community of practise in this space, 7) rolling out new service delivery and planning practices.
- Undertake interviews with key role players in the journey, in addition to desktop and survey mechanisms.
- Analyse institutions readiness in the sector that are able to take the facilitation of implementing water sensitive design-linked solutions forward.
- Clarify and recommend where further work, investment and expansion is needed.

This terms of reference, seeks an research group with impact analysis experience, water sector insight, and also needs to bring on capacity in terms of packaging this product in an accessible impact story for the WRC to communicate further.

Deliverables:

At a minimum we would expect:

1. A detailed project report responding to all aspects of the ToR, detailing methodology, engagements, findings, limitations, recommendations, etc,
2. A contextualised Theory of Change (ToC) to guide the implementation, scaling, and RDI support for Water Sensitive Design (WSD) in South Africa. The ToC will serve as both a strategic planning tool and a dynamic framework to enable multi-sectoral alignment, capacity-building, and innovation uptake in support of water-sensitive development.
3. An accessible communication style story for dissemination of the impact story to the sector.
4. A prepared social media outreach campaign summarising the main impact messages

Total funds available

R 1 000 000 maximum. R 400 000 should be budgeted for year 1.