River maintenance and management plans in the Berg–Breede Demonstration Catchment

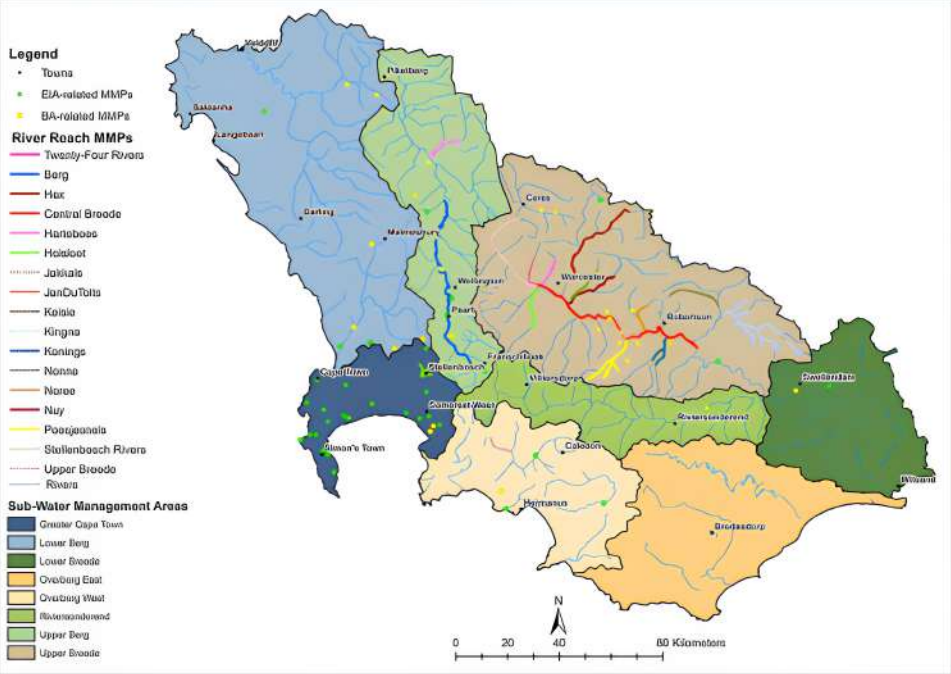
Ndzolo Bam

Healthy rivers are vital for the fundamental ecosystem services they provide to people. They provide essential resources such as water for drinking and agriculture. They also shape the landscape and pump water with nutrients like nitrogen, phosphorous and organic matter into wetlands to maintain water levels and improve soil quality for plant growth. In addition, rivers help mitigate the effects of natural disasters such as floods by channelling fast-moving water downstream. Given their strategic value as ecological infrastructure, investments made to restore, maintain and manage rivers can yield significant benefits to the environment in terms of water supply. Understanding the condition of rivers and their contribution to the landscape are the foundation for these investments.

The Ecological Infrastructure for Water Security (EI4WS) project, a five-year project implemented by the South African National Biodiversity Institute (SANBI), focuses on investment in ecological infrastructure for water security. As part of this project, BlueScience (Pty) Ltd assessed relevant River Maintenance and Management Plans (RMMPs) for the Berg–Breede demonstration catchment. River Maintenance and Management Plans are a set of strategies, policies and activities implemented to ensure that associated ecological infrastructure is maintained, restored and rehabilitated in accordance with the guidelines laid out in the National Environmental Management Act (NEMA) 107 of 1998 and National Water Act (NWA) 36 of 1998. RMMPs provide a framework for decision-making, and developing and implementing these plans will ensure that organisations, communities and landowners work together to ensure the long-term health and viability of water resources.

The process of developing RMMPs relies heavily on the data available for the activities in a river channel so that informed decisions are made, and river systems managed effectively. The EI4WS project interns were tasked with mapping the locations of authorised Environmental Impact Assessment (EIA) and Basic Assessment (BA)-related Maintenance and Management Plans (MMPs) with their associated river reaches in the Berg–Breede catchment.

The process of mapping EIA and BA-related MMPs attracted a range of stakeholders in the Berg–Breede catchment, including the Department of Environmental



Mapped BA and EIA-related MMPs with river reach MMPs in the Berg–Breede Demonstration Catchment.

Affairs & Development Planning (DEA&DP), the Western Cape Department of Agriculture, Catchment Management Agencies, Water Users Associations and/or Irrigation Boards and other interested parties. The EI4WS interns, with the assistance from BlueScience (Pty) Ltd consultants, were also responsible for removing all sensitive information like company names, applicant names and property numbers from the data before sharing it with stakeholders. Challenges encountered during the mapping process were the lack of or insufficient details regarding the project locations of the EIA and BA-related MMPs, but this was addressed during the stakeholder engagements.

The assessment in the Berg–Breede catchment aimed to investigate the impact of RMMPs and promote integrated catchment management through support and collaboration with stakeholders. From this experience, it is recommended that the EI4WS project addresses the limitations of the MMP process and explores options for effective national implementation in the future. The project could also contribute its GIS capacity to enhance the spatial layer and incorporate biophysical and ecological conditions of sites before and after approval of the RMMPs. The ultimate goal is to monitor the implementation of RMMPs, promote evidence-based decision-making, and facilitate learning.

The EI4WS project aims to capacitate the youth by involving them in different social and technical processes. Through this process, the EI4WS project interns had the opportunity to successfully contribute to mapping RMMPs, developing the technical report and participating in stakeholder engagements in the Berg–Breede catchment.

EI4WS overcomes silo mentality through writing retreats and sharing knowledge products

By Ndzolo Bam,
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Collaboration is the foundation for the successful implementation of any project. It enables creative ideas through interdisciplinary learning and promotes a multi-faceted approach. However, many projects experience challenges in fostering partnerships and sharing information with other organisations. One of the causes for this problem is the silo mentality, whereby individuals within an organisation or department operate in isolation, with limited communication or information sharing. To address these challenges, organisations can initiate learning exchanges that are inclusive and based on clear goals, shared values, and effective communication.

The Ecological Infrastructure for Water Security (EI4WS) project, implemented by SANBI, takes pride in building and securing long-term partnerships in the Berg–Breede and Greater uMngeni demonstration catchments. These partnerships consist of different communities of practice and are based on a common objective to contribute to improving practices related to water security. As it is implemented in various landscapes, the project has also been at risk of working in silos and, in particular, the uncoordinated development of project-specific knowledge products. The EI4WS project initiated writing retreats to address integration challenges through the social learning, knowledge management and mediation component. Writing retreats provide space for organisations, partners and project team members to write collaboratively, provide and receive input, address tensions, highlight important experiences and strengthen relationships.

These are typically semi-structured spaces for SANBI staff, from the chief director to interns, to co-develop knowledge products. They have also included representatives from partner organisations like the Water Research Commission and Breede–Olifants Catchment Management Agency. While these have become important in the co-development of knowledge products, they are also important platforms for capacity development and creating a shared understanding of project initiatives. Within this collaborative setting, participants explored key interests including the history of the project and unresolved interventions related to policy, planning, investment and implementation. This multi-faceted approach not only showcased the diversity of the EI4WS project it also showed the the project's commitment to generating valuable insights, collecting credible evidence and facilitating knowledge management to make a meaningful contribution to the field of water security.

EI4WS project group discussion.

EI4WS team in the Walter Sisulu National Botanical Garden.

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The writing retreats were thoughtfully designed to foster an inclusive and productive environment. The programme was structured to promote time for reflection, discussion and writing. The daily activities included various elements beginning with a morning check-in and reflection session where individuals openly shared their daily concerns and expectations. This was followed by engaging discussions, focusing on topics of interest from project outcomes, and dedicated writing sessions during which participants concentrated solely on their writing pieces. There were breaks in between the sessions to refresh the mind by taking walks in the gardens for a change of scenery and facilitating info,rmal and fruitful discussions. This structure ensured a balanced productive working environment.

During a series of writing retreats, the EI4WS project has successfully managed to bring together different organisations and project components to reflect on their progress and outcomes. The project team collaboratively crafted a range of materials, including in-depth case studies and reflective articles that are nearing publication during these retreats. The lessons captured within these knowledge products will not only inform current practices but also contribute to future planning and decision-making to improve water security in the project's demonstration catchments.

Writing retreats have demonstrated the importance of collaboration and knowledge sharing, and how it can effectively break the silo mentality, leading to tangible results and a substantial contribution to the field of ecological infrastructure for water security. Through well-structured writing retreats and a commitment to partnerships, this project serves as an exemplary model for organisations seeking to enhance their collaborative efforts and drive meaningful change.

EI4WS research assistants from left to right: Ndzolo Bam, Sive Melane and Nombulelo Ntongolo.