

A newly-completed Water Research Commission (WRC) project has evaluated the improvement of dysfunctional wastewater treatment works through a multi-stakeholder support campaign

Background

Pollution from South Africa's wastewater treatment works (WWTW) has been a national priority concern for some years now. Dysfunctional WWTW threaten the provision of drinking water, the safety of people living downstream and using water directly, as well as aquatic ecosystems.

To date, most interventions have focused on training and capacity building, emergency interventions and inspections. They have not addressed the political questions that constitute the dynamic of dysfunctional WWTW.

This research project approached the problem of dysfunctional WWTW via a combination of political ecology, action research, social learning and complexity approach, with the following research question: Can dialogue, social learning in a community of practice formed from diverse stakeholders, practical cooperation and a better understanding of the position of WWTW frontline staff as well as the responsible municipalities, lead to improvement in Green Drop scores and performance?

Methodology

This project consolidated lessons learned during seven dialogues which took place between 2014 and 2015 in the Crocodile River catchment – part of the Inkomati-Usuthu water management area. The dialogues comprised industry, local municipalities, water quality regulators and members of civil society.

The support campaign was aimed at improving the performance of the WWTW of the four municipalities in the Crocodile (East) River catchment, through a collaborative engagement and development of a community of practice. The dialogues were

followed up by interviews with municipalities, officials in national government departments, and campaign participants.

Separate research tested the applicability of the community of practice concept to this intervention. The research also tested a theory of change, namely that in Green Drop support campaign:

- WWTWs will achieve a higher profile locally, in public and with the municipality (councillors and officials). This will prevent the current practice of reallocating WWTW budget to other priorities mid-year, and inappropriate and inadequate procurement practices.
- Civil society will adopt a support attitude towards WWTW on the basis of an in-depth understanding of their context and functioning. Staff responsible for WWTWs will not be under general attack by civil society and other catchment stakeholders; instead efforts will be focused on identifying the bottlenecks in achieving a better Green Drop score.
- While there is clear support from national and regional DWS, and a focus by the Inkomati Catchment Management Agency, the working group with broad stakeholder support needs to receive and orient the support into productive channels.

Conclusions and recommendations

The main challenge uncovered by the research project team is the general disconnect between the WWTWs, their frontline staff and local government's top triangle: municipal manager, technical manager and finance manager. National departments, on the other hand, feel bound by the constitutional autonomy of local government, which as an

equal sphere of government with the right to earn income providing water and electricity.

The dialogues proved that the majority of frontline staff at WWTWs are keen to do their work properly, but need better support from local government to do so in terms of routine procurement, maintenance and expansion of works, as well as staff provision. In particular, frontline staff need local government officials to be responsive to their needs before and during Green Drop inspections.

A community of practice was formed, but due to the disparate range of backgrounds, people, professions, cultures and paradigms, this was not the best conceptual framework, and exploring a collection action, social learning or a strategic adaptive management approach is recommended. There is great concern about the dysfunctional WWTW, nationally and locally, in civil society, but also in various arms of government (particularly on national level), and this energy can be harnessed towards solutions and improvements.

Civil society and local government WWTW staff have the ability to develop (much better) working relationships and social trust, in order to work together in a community of approach or social learning setting. This can contribute to the development of active citizenship in a participatory democracy, and the strengthening of participation in catchment management.

Action or generative research can support the development and testing of strategic options. It is recommended by the final report that the Green Drop issue should be conceptualised more broadly to include sewer systems and unserved areas, such as informal settlements.

Further reading:

To order the report, *Engaging a complex problem through a community of practice approach: Improvement of dysfunctional wastewater treatment works through a multi-stakeholder Green Drop support campaign (Report No. KV 345/16)*, contact Publications at Tel: (012) 330-0340, Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.