



Emanti Management Solutions

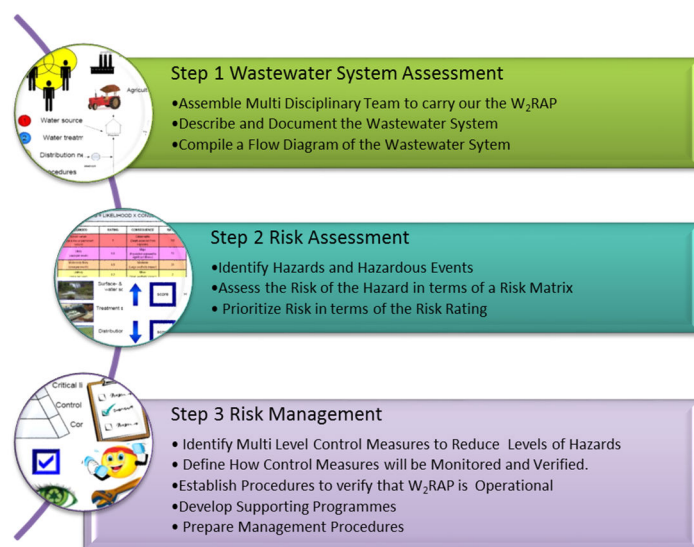
Waste Water Risk Abatement Plans

An Integrated Solution for Waste Water Risk Management

Meeting the standards for wastewater effluent for most Water Services Institutions (WSIs) remains a complicated challenge, one which has been further highlighted through the Department of Water and Sanitation's (DWS) Green Drop Certification (GDC) Process.

A critical part of the GDC process is the development and implementation of Waste Water Risk Abatement Plans (W₂RAP). The W₂RAP builds on existing good risk management practices in outlining a systematic and transparent approach to ensure consistent compliance and good practice to rendering wastewater services. It focuses on public health and natural resource protection and balances all hazards and risks that may apply along the full value chain.

The success of a W₂RAP is driven by ownership by the WSI and the availability of resources to develop a W₂RAP and implement as per the steps below:



When W₂RAPs became a GDC requirement, the Water Research Commission (WRC) funded the development of a W₂RAP guideline and associated tools.

Emanti was appointed to facilitate the process for the development of both spreadsheet and web-enabled W₂RAP tools. Lessons learnt through the W₂RAP project have in turn also allowed the review and update of the Water Safety Plan (WSP) tools. These tools will continuously be reviewed to suit the ever changing sector requirements.



Emanti, through its continuous involvement in the developing of W₂RAPs, has also supported individual WSIs in developing W₂RAPs. Some notable clients include;

- City of uMhlatuze (KwaZulu-Natal (KZN))
- Newcastle Local Municipality (KZN)
- Uthungulu District Municipality (KZN)
- Uthukela District Municipality (KZN)
- Bergrivier Local Municipality (Western Cape (WC))
- Cape Agulhas Local Municipality (WC)

Emanti has recently concluded a project for WRC and Department of Science and Technology (DST). The project aims to "Build Capacity for the Implementation of WSPs and W₂RAPs in District Municipalities (DMs) in the Eastern Cape Province (EC) and KwaZulu-Natal (KZN)". The project's primary focus was the empowering of 4 DMs in the Eastern Cape and 8 DMs in KZN to conduct effective risk management in both drinking water and wastewater. The project aimed to support and not to reinvent risk management that has already been initiated by DMs within the Blue and Green Drop Certification Processes. The project also supported further capacity building using the WRC tools together with the project team's expertise and experience. Participating DM's are now better equipped at managing their risks within existing W₂RAP processes whether internal or Professional Service Provider (PSP) facilitated. As part of the capacity building, a W₂RAP improvement plan was also developed.

Acknowledging that W₂RAPs need to incorporate the entire value chain from consumer to environment, site inspections with the involved WSI's were undertaken for the selected systems. Subject to the completion of the preliminary risk assessments and prioritization, and using the WRC tool, workshops were conducted with the WSI's and Water Services Provider's (WSP's) technical and management officials to ensure that all applicable risks were captured and Control Measure Validation undertaken.

Improvement Action Identification allows for the important capturing of responsibilities, estimated budgets and estimated timelines of the prioritized risks. Once the corrective actions are implemented a Residual Risk Rating exercise can be undertaken to ascertain the effectiveness of the improvement actions in lowering of the risk level.

Together with fulfilling the guidelines for a successful W₂RAP, Emanti also assisted WSI's in the drafting of supporting and monitoring programmes to support the implementation of the W₂RAP. Special consideration has been given to Incident Management Protocols, which also form a critical part of the Green Water Services Audits of DWS.

With each passing year, the GDC requirements have become more stringent. By way of example, Sludge Management is now a crucial part of the W₂RAP process. In addition, the implementation of the previous drafted W₂RAPs are checked. This will mean that WSI's will need to prove implementation of corrective/improvement actions and demonstrate improved risk based performance on a year to year basis by tracking the implementation process and effluent quality. Emanti is well positioned to assist with these changing requirements.



Through the utilization of the WRC tools and Emanti's expertise and experience, benefits to the municipal sector are being observed for the effective management and mitigation of risks pertaining to the return of good quality effluent water to the environment.

Contact us for further information on the W₂RAP tool or go to www.riskq.co.za.



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