

EXECUTIVE SUMMARY

Steve Tshwete Local Municipality (STLM) is committed to effective governance to ensure the delivery of all essential services to its residents. STLM management strives to achieve this while employing best practice procedures and compliance to all relevant legislation. In light of the requirements outlined under the Green Drop certification programme run by Department of Water Affairs (DWA), STLM has dedicated resources to comply with all these requirements. One of the requirements is a Wastewater Risk Abatement Plan (W₂RAP) which is a plan of action to outline corrective actions to reduce all identified risks as well as to improve the Cumulative Risk Rating (CRR) of each treatment plant as outlined in the first-order assessments conducted by DWA¹. The process of development of a W₂RAP for STLM has begun in 2010. As per the scope of works described in Table 1, Step One has been completed and is presented in this document. This section focuses on the review of the Cumulative Risk Rating (CRR) outlined in the first-order assessments resulting in proposal and implementation of a plan of action to reduce these risks. The W₂RAP will be extended to include a detailed risk identification and risk assessment process of all four Wastewater Treatment Works (WWTW) as per Table 1 and this will be completed at the end of January 2011. The 1st order CRR rating for Boskrans WWTW confirms that the plant is operating on average at 80% of design capacity and this has resulted in non-compliance with four effluent parameters. Then current expansion and upgrade of Boskrans should address the issues of non-compliance. Although the 1st Order CRR rating of Kwaza WWTW outlines several non-compliances to effluent standards, the operational management is excellent as indicated by the Green Drop Technical report. Lack of information on the assessment criteria, like the number of biological samples to be analysed on an annual basis. Appear to be the major contributing factors related to noncompliance. Hydraulic and biological capacity will be assessed to address the need for future upgrading of the plant. Blinkpan WWTW and Komati WWTW have a reduced CRR rating because of their small hydraulic capacity and hence has a smaller impact on the receiving environment. However, STLM has appointed a task team that is currently assessing the performance of these two plants as they were previously owned and operated by Koorfontein Mines. A number of initiatives have begun such as gathering of technical drawings to show plant configuration, replacement of faulty flow meters, upgrade of chlorination units and appointment of a new supervisor. STLM has identified a number of risks after review of the CRR scores and proposed implementation of actions to reduce these. A summary of these findings is included below.

- (1) Possible incorrect flow meter readings due to faulty equipment: currently addressed by appointment of service provider to replace meters and calibrate on an annual basis.
- (2) Lack of technical information for Komati WWTW and Blinkpan WWTW: have begun process to acquire information from Eskom. Have also set up task team to evaluate performance of these two Wastewater Treatment Works
- (3) Non-compliance at Boskrans WWTW with major impact on environment: to be addressed by upgrading of the plant.
- (4) Operational and compliance monitoring is inadequate: Both operational and compliance monitoring programmes have been reviewed and new programme implemented in May 2010. Investigate addition of upstream and downstream monitoring points.
- (5) Lack of relevant water-use licenses: STLM is in the process of obtaining quotes for license application as detailed water quality report and EIA's are required for Boskrans. The cost must be included in the next financial budget.
- (6) Lack of technical skills; this will be evaluated once registration certificates have been issued by DWA.

STLM views the CRR scores as a guide to overall risk management at all WWTW. The detailed risk assessment process that will begin in 2011 will assist STLM in identifying specific actions to be taken to manage risk at all levels namely: Environmental, Financial, Operational, and Institutional. This will be an on-going process that will include an annual review and verification of the process as well as effective communication of the risks and implementation plan.