

PROJECT NAME

Risk Management and Process Audits

CLIENT

Midvaal Water Company, EXXARO mine, Steve Tshwete Local Municipality, Lepelle Northern Water, Tzaneen Local Municipality

PROJECT VALUE

Various projects

SERVICES

Water Safety Plans, Wastewater Risk Abatement Plans, Process Audits

TIME FRAME

2009 (On-going)



The World Health Organisation embraces the concept of risk management as “the most effective means of consistently ensuring the safety of drinking water”¹ and has formulated the Water Safety Plan which outlines a comprehensive risk assessment and risk management approach to water treatment. Incentive-based regulation from Department Of Water Affairs in the form of the Blue and Green drop Certification programme, recognises the importance of using the risk management approach to ensure effective management of water/wastewater systems and has included the requirement for a Water Safety Plan and a Wastewater Risk Abatement Plan in the Blue and Green Drop Criteria. Another requirement for both Blue and Green Drop certification is an annual process audit that must be conducted to achieve plant optimisation. The process audit forms part of risk management as it

is targeted specifically at reducing risks relating to the treatment process and ensure compliance of the final product.

CSV is fully conversant with the requirements of an annual process audit, Water Safety Plan and Wastewater Risk Abatement plan, as required for Blue and Green Drop certification as five members of CSV been trained and qualified as Lead Inspectors for Blue and Green Drop programme.

CSV has compiled a number of Water Safety Plans and Wastewater Risk Abatement Plans for a number of clients including Midvaal Water and Steve Tshwete Local Municipality. Members of staff have contributed to the Water Research Commission report on Wastewater Risk Abatement plans with examples quoted from the plan developed by CSV for Steve Tshwete Local Municipality. CSV has published a paper on the ‘need’ for a Water Safety Plan and Wastewater Risk Abatement Plan².

CSV has conducted a number of annual process audits for DWA to identify performance-limiting factors at problem plants as well as for a number of clients including Groottegeluk Mine (EXXARO), Olifantspoort WTW (Lepelle Northern Water) and Midvaal WTW (Midvaal Water). Members of CSV have also presented two papers on how to conduct process audits^{3,4}.

CSV is confident that our on-going association with the Blue and Green Drop programme as Lead Assessors will enable us to assist municipalities in implementing a Risk Management Plan that will lead to effective management of water and wastewater systems.



¹ World Health Organisation (2005) Water Safety Plans: Managing drinking-water quality from catchment to consumer. Geneva.

² Laher AH, Ceronio AD (2011) Why the need for a Water Safety Plan and a Risk Abatement Plan. Water Quality Conference 2011, Cape Town.

³ Laher AH, Ceronio AD (2010) A Guide to process audits leading to optimisation. WISA Biennial 2010. Durban.

⁴ Laher AH, Ceronio AD (2011) A Guide to process audits. Water Quality Conference 2011, Cape Town.