



AFRICAN EXPERTS



MULTI-DISCIPLINARY



INTERNATIONAL FOOTPRINT

Client: ERWAT  
Services: Refurbishment and Upgrades Design  
Appointed Date: September 2021

# Waterval Wastewater Treatment Works, South Africa

Detail Design

## The Location

ERWAT'S Waterval WWCW is located on a farm near Klip River (Midvaal Local Municipality). Waterval WWCW is the biggest works operated by ERWAT.

## Design Services

The upgrading and expansion of the Waterval was a combination of retrofitting existing modules and construction of new modules.

These elements comprised:

- The biofilter/trickling filter model upgraded by a conversion of conventional rock media trickling filters.
- The activated sludge modules were upgraded by a conventional Biological Nutrient Removal activated sludge to a proven activated sludge technology retrofit.

## Scope of work

- Refurbishment and upgrades design for the Waterval WWCW.  
Review of the detail design done in terms of the Refurbishment and Upgrades.
- The upgrade design included the following engineering fields:
  - Civil Engineering
  - Structural Engineering
  - Architectural Services
  - Mechanical Engineering

