

Aqua Earth

Aqua Earth Consulting offers professional, practical solutions to our clients' geohydrological and engineering geological environments. These services include an integrated and effective approach to the management, utilization and monitoring of water resources, as well as legal and environmental aspects related to these environments. Our firm consists of a team of specialist consultants with expert knowledge in, hydrogeology, engineering geology, environmental assessments, environmental legislation and the application to mining and water resource management.

The clients we serve include local and internationally based mines, national and international government departments, local authorities, municipalities, private clients and our network of consultants.

Water is the true wealth in a dry land; without it land is worthless or nearly so. If you control water, you control the land that depends on it.

- Wallace Stegner (1954)

Consulting Services

- Geohydrological Services
- Aerial photo and satellite imagery interpretations
- Desktop geohydrological studies
- Borehole siting
- Drilling supervision
- Pump testing supervision
- Pump test analysis and flow characterization
- Regional hydrogeological mapping
- Recharge estimations
- Risk assessments
- Site assessments/characterization
- Mine dewatering assessments
- Mine dewatering design
- Construction site water supplies
- Water quality assessments
- Groundwater feasibility studies
- Geophysical Services
- Ground magnetic surveys
- Vlf surveys
- Resistivity
- FDEM (frequency domain electromagnetic surveys)
- Engineering Geology
- Foundation investigations
- Township planning - structures
- Test pit profiling & soil sampling
- Road centerline investigations - DCP test, Profiling sampling
- Specialist Groundwater Modeling
- Our experts utilizes both Modflow and Feflow packages to ensure optimum solutions
- Flow/mass transport
- Pollution plume modelling
- Mine dewatering studies
- Geochemical modelling for AMD and other applications
- Environmental Studies
- We provide specialist investigations and contractual undertakings for the following environmental studies:
- Specialist studies for EIA, EMPR and EMP
- Mine Closure
- ISO 14001:2004 - auditing
- Project Management
- Specialist environmental water related projects
- Engineering geological projects
- All phases of geohydrological investigations: desktop, exploration, development management and maintenance. (Pre-feasibility, feasibility and implementation reports)
- Monitoring, repair and maintenance on groundwater infrastructure such as pumps, pipelines and bulk supply
- Groundwater Management
- Our team adds value to any groundwater operation offering the following services:
- Operation, repair and maintenance of groundwater infrastructure

- Scientific aquifer management and monitoring to ensure long term sustainability
- Training to local operators and technicians
- Monitoring and sampling of groundwater to ensure optimum management solutions
- Database management and maintenance
- Water Balance Studies
- Rural Water supply
- Mining
- Industrial

Contractual Services

- Drilling
- Water well drilling
- Borehole drilling
- Mine dewatering monitoring borehole drilling
- Installation of multilayered environmental piezometers
- Groundwater pollution monitoring and remediation boreholes
- Geotechnical investigation boreholes e.g. shallow dolomite
- Pump testing
- Individual borehole testing (yields up to 10l/s)
- Cluster borehole testing and monitoring
- Borehole logging services
- Borehole caliper logging (up to 1.5m diameter)
- Down the hole natural gamma and dual resistivity
- Pump installations

This function is subcontracted to our network of reputable, accredited suppliers and installation contractors.
Equipment

AquaEarth makes use of a wide variety of geophysical equipment in their investigation in order to provide the best possible assessment of local geological conditions.

Our Geovista four arm borehole caliper allows us to caliper measure boreholes up to 1.5m diameter and 600m depth allowing the determination of borehole volumes as well as enhancing the borehole construction design with accurate depth and weathering information.