

2021/22
Water is life...

AGT
water & sanitation
dredging
water and waste water specialist



COMPANY PROFILE



introduction

AGT is a majority Black owned equity and Chief Executive led modern ground breaking Professional Consulting, Water, Sanitation and Dredging or De-sludging Company.

Although the company is renowned for outstanding business practice in the sectors where it participates, its core business of design and/or construction of Water and Waste Water Infrastructure and Treatment Plants (WWTP) including Pump Stations and Networks gives the company a differentiated competitive edge in this industry. Similarly, the unique AGT technology, sets the trend in the sustainable resolution of:

- Clean Drinking Water
- De-sludging / Dredging
- Acid Mine Drainage (AMD)
- Contaminated Sewer Water Treatment
- Mechanical and civil maintenance
- Disastrous sewer spillage
- Raw Sewage Contamination
- Odour control
- Microbial Additives

De-sludging / Dredging is a unique speciality, and clients could capitalize on the competence by utilizing the company on a national basis for emergency intervention.

The company is committed to the preservation of the environment, human health, and local economies. We are about the sustainable conservation of the ecology and overall biodiversity.

The AGT Dredging business model focuses on:

- Refurbishment/upgrading of existing plants/capacity optimization via unique technological intervention
- Rehabilitation of existing and dormant plants
- Bring the plant to full functionality and increase capacity.

AGT developed new and unique technology; the ground breaking Jet mixer and Greenbact Microbial Additive deliver highly desirable results, such as

- Sustainable full functionality.
- Optimum sludge management and reduction.

Our AGT Abrimix Water Treatment System allows us to clean Acid Mine Water and other contaminated water to SABS 241 Standards.

Water is the AGT business. Water is life. We deliver human dignity. AGT strives to be a model corporate citizen. We respect customer values. We uphold service excellence. We are socially responsive and responsible. Governance and integrity drive AGT. The company delights in the transfer of knowledge to clients and communities. The company promotes the creation of job opportunities and capacity in the society.

In the pursuit of the AGT vision, we will continue to invest, and collaborate with strategic associates to synergize technical competencies such as Civil, Electrical, Mechanical, and Structural Engineering, Bulk Water and Wastewater Services, Contract Administration and Project Management.



We have been involved with Labour Intensive Projects (EPWP) that uses local labour on various projects.

Our site personnel has experience in managing LI projects and are mentored by our technical directors who have NQF7 qualifications. The company operates nationally. The scope of products and services are as presented below.

THE SANITATION CHALLENGE

It is no secret that the water infrastructure in terms of quantity and quality has over the last few years deteriorated to a critical state. If nothing is done, the status will move from critical to emergency to disaster.

There are many arguments and reasons for the poor infrastructure condition amongst which is the lack of funding and personnel capacity for maintenance that appears to be the most common culprit to blame for the poor state of the existing water and sanitation infrastructure in South Africa.

The sanitation need in South Africa may be defined as a combination of:

- Service delivery backlogs (people who have never been served);
- Refurbishment backlogs (sanitation infrastructure that has deteriorated beyond regular maintenance requirements);
- Extension backlogs (existing infrastructure that needs to be extended to provide the service to new households in the communities)
- Upgrade needs (infrastructure that does not meet the minimum standards)
- Operation and maintenance (O&M) backlogs (infrastructure that has not been properly operated and maintained, but can be adequate if funds are allocated to ensure proper operation and maintenance)

CONCLUSION

Due to the above challenges and our extensive experience in the upgrading of WWTP's, we are in a unique position to provide our clients with full turnkey lifecycle solutions for the Refurbishment of any plant.



consulting

AGT was established to provide civil, structural, mechanical, building and electrical engineering as well as architectural and quantity surveying services. AGT is a multi-disciplinary company specializing in the various disciplines of engineering. The directors of AGT identified the need for excellence in the engineering profession as well as the need for training and mentoring of young employees to ensure a better future for all.

AGT strives to improve the lives of the communities we serve and raise the image of the engineering professions through the provision of exceptional professional services, due diligence and optimum solutions.

The company is an experienced, capable and innovative firm, a competitor on all engineering fields regardless of the scale and complexity of the project. AGT has demonstrated management competence and broad engineering and architectural understanding by designing and coordinating diverse engineering and architectural disciplines to achieve optimum results adhering to completion schedules, high quality, safe design and economical construction methods.

AGT is well placed in the consulting engineering market to cover the whole spectrum of civil, structural, electrical and mechanical engineering along with architectural, quantity surveying, town planning, surveying, design in dolomitic areas and project management services from preliminary studies to implementation. AGT has a low overhead cost structure with all members of staff and management actively involved in the day-to-day operations of the company. This ensures effective management as well as corporate accountability of the business.

The staff of AGT believe to plough back into the communities using high quality and on-time workmanship. Through leading by example, the foundations are constructed to develop the future of Africa.

product offering

- Contract Administration & Project Management
- Sustainable Civil & Structural Engineering Design Services
- Civil and Structural Engineering Specifications and Schedule of Quantities
- Green Star Design Services
- Electrical / Mechanical & Electronic Engineering
- Quantity Surveying Services
- Architectural Services
- Mechanical Engineering Services
- Wet Services and Rational Fire Engineering Services
- Value Engineering Services
- Engineering Review Services
- Engineering Investigations & Assessments
- Occupational Health & Safety Services



institute membership

Being situated in the forefront of Consulting Engineering, it is mandatory to subscribe to the Policy Guidelines and Code of Conduct published by the Engineering Council of South Africa (ECSA). AGT demonstrated, over the various projects completed, that they are highly competent with high integrity standards and positions ethical interest at the forefront of their operations. We also subscribe to the policy and Code of Ethics published by Consulting Engineers of South Africa (CESA).

We encourage our technical personnel to register at their various Institutes who governs the professions. These are the regulatory bodies that govern and enforces professional conduct and ensure quality and competence of registered professionals.

These Institutes include:

Individual Membership:

ECSA
South African Institute of Civil Engineering (SAICE)
CESA
National Home Builders Registration Council (NHBC)
South African Council for the Architectural Profession (SACAP)
The South African Council for Planners (SACPLAN)
The South African Council for Quantity
Surveying Profession (SACQSP)
South African Council of Natural Scientific
Professions (SACNSP)
South African Council for the Landscape
Architectural Profession (SACLAP)
Green Building Council South Africa (GBCSA)
South African Council for Project and Construction Management
Professions (SACPCMP)

Company Membership:

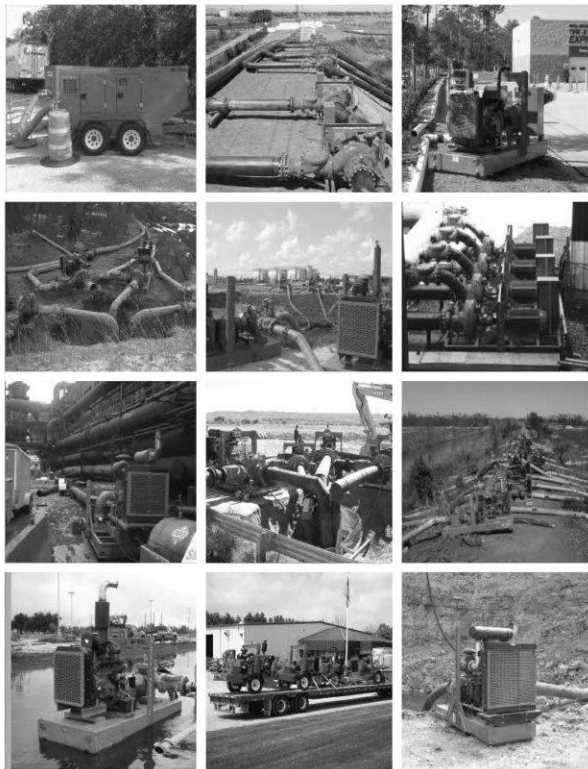
Water Institute of Southern Africa (WISA)
The South African Institution of Mechanical Engineering (SAIMEchE)
Construction Industry Development Board (CIDB)

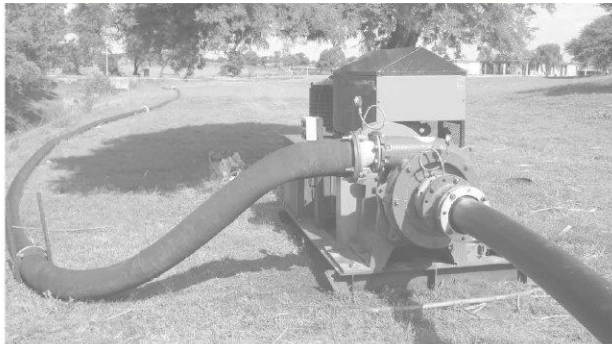


SAIMEchE
By Knowledge We Advance



AGT
water & sanitation
engineering
water and waste water specialist





our contracting division specialize in:

- construction
- ash dam cleaning
- tailings dams
- spillage cleanup
- dewatering
- transfer pumps
- slurry pumps
- gear pumps
- centrifugal pumps
- end suction pumps

trash auto prime pumps

Trash Auto Prime Pumps are specifically designed to effectively handle a wide range of liquids from water to sewage and sludge that can contain solids and other material. The pumps range in sizes from 4" to 24" with flows to 3634m³, heads to 73meters and solids handling to

- sewer bypass
- sludge pumping
- dust suppression
- jobsite dewatering
- stream diversion
- stormwater management

high pressure auto prime pumps

High Pressure Auto Prime Pumps are specifically designed to effectively handle a wide range of liquids in applications where high heads and pressure are required. The pumps range in sizes from 4" to 12" with flows to 1000m³, heads to 180meters and solids handling to 2,5". They provide a dependable, highly efficient solution and

- mine and quarry dewatering
- wash down
- jetting
- fire protection
- piling installations
- fracking
- hydrostatic testing



The Amphibious Excavator is a highly unique machine designed to work in areas that are inaccessible to conventional Dredging Equipment; Marshy and Swampy areas, soft terrain as well as floating on water. That makes the Amphibious Excavator ideal for use in canals, along shorelines and in wetland areas.



Our Amphibious Excavator Dredging Equipment is completely self-propelled and can virtually access all terrains and yet requires a minimum of supporting transportation.

⑦ amphibious dredgers



This innovative dredge unit is suitable for dredging and cleaning water capture areas where silt or slimes is an issue or where water retention and water holding capacity is being threatened. With this dredge unit regular cleaning of process water



Our Combination Jetting and Vacuum machines offer high pressure water and high volume vacuum capability, utilizing separate water and vacuum tanks.

Performing the dual function of high pressure jetting for, deep effective drain cleaning, as well as a powerful vacuum pumping, for the removal of the dislodged and loose waste, these units are capable of penetrating even the toughest drains and removing incredible stubborn obstructions.

These units are very often used for the vacuuming of sand from pumpstations and waste water treatment plants.



Lockable concrete manhole covers can be implemented as community upliftment projects in conjunction with the upgrading or refurbishment of waste water treatment plants. Manholes are often used as garbage dumps which is another cause for line blockages.





New and refurbishment of Mechanical Equipment:

Hand Rake Screen
Spiral Conveyor
Washer Compactor
Paddle Stirrer
Grid Classifier
Valves

Mechanical Screen
Pista Grit Equipment
Sluice Gates
Vertical Shaft Mixers
Vertical Shaft Aerator
Scraper Arms (PST & SST)

mechanical equipment



New and refurbishment of Electrical installations

Motor Control Center
Control Panels
Electrical Fault Finding
Electrical Connections
to equipment.





⑭ repair existing dam linings



sludge pumped into bags

qalabotjha wwtp

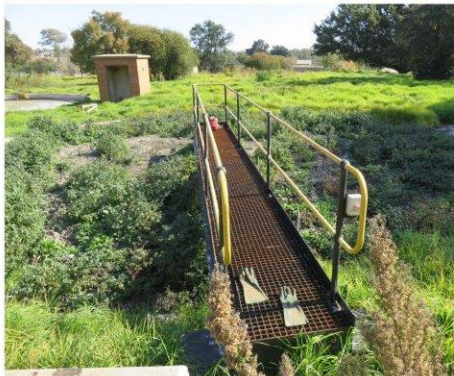
Dewatering Bags are an easy and economical option for any site looking to remove sediment or silt from their discharge. Constructed from a robust textile filter fabric, these bags catch and contain sediment as it is being pumped from your site. Their combination of strength and effectiveness has made them a favorite for construction sites, power plants, dredging areas, and more.

dewatering bags





wrong desludging practices



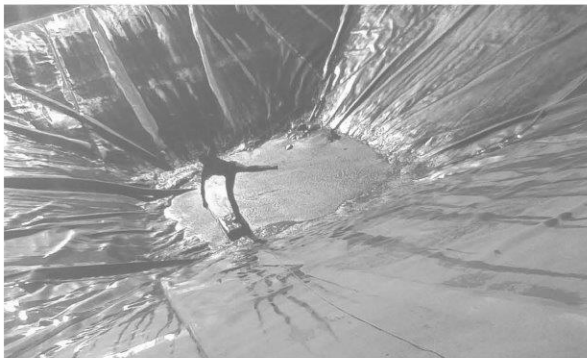
condition of existing wwtp's in south africa



qalabotjha wwtp



inlet pond dredged



Inlet pond cleaning completed



Inlet pond being cleaning



Inlet pond being cleaning



Clarifier cleaned

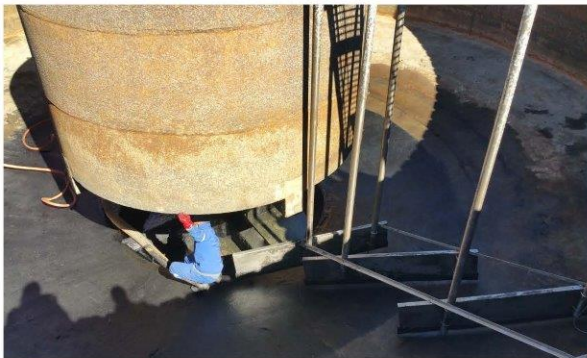


Clarifier not working



Clarifier not working

warrenton wwtp



Clarifier emptied and cleaned



Clarifier not working



Clarifier not working



Cleaning the Aeration Basin



Aeration Basin before cleaning



Cleaning the Aeration Basin



Clarifier not working



Clarifier not working



Water released to river before treatment at chlorinator.



Chlorinator.



6 Days later the plant works normal. Sludge removed to drying beds.



Chlorinator after 6 days.



Chlorinator gets mixed and treated.



Chlorinator gets mixed and treated.

Test Report

Page 1 of 1

Client: AGT Sanitation (PTY) LTD
Address: 229 Fred Nickleson str, Pretoria
Report no: 14117
Project: AGT Sanitation (PTY) LTD - Phokeng WWTP

Date of certificate: 12 September 2013
Date accepted: 09 July 2013
Date completed: 12 July 2013
Revision: 1

Job no:	138079			138077	138078		
Date sampled:	08-Jul-13			08-Jul-13	08-Jul-13		
Sample type:	Water			Water	Water		
Locality description:	Measurement of uncertainty	General Limit - Non Limited Water Resource	Air Ratio	SST	Chlorinator		
Analyses	Unit	Method					
A Nitrate (NO ₃) as N	mg/l	ALM 06	26.11	15	8.99	3.99	0.702
N Nitrite (NO ₂) as N	mg/l	ALM 07	9.45		5.42	3.22	0.314
A E.coli	CFU/100ml	ALM 40	8.43	1000	>100 000	>100 000	>100 000
N Faecal coliform	CFU/100ml	ALM 42		1000	>100 000	>100 000	>100 000
N Total coliform	CFU/100ml	ALM 40	6.61		>100 000	>100 000	>100 000
A Chemical oxygen demand (COD)	mg/l	ALM 10	18.44	75	59.4	1324	8652
N Suspended solids (SS)	mg/l	ALM 25	25	340	1265		8135

A -Accredited N-not accredited O -Outsourced S -Sub-contracted NR -Not requested RTI -R200 Its to follow NATO -Not able to determine
Results marked "Not SANAS Accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory.
This test report shall not be reproduced except in full, without written approval of the laboratory.
Measurement of uncertainty available on request for all methods included in the SANAS Schedule of Accreditation.
Results reported against the limit of detection.

Laboratory Manager: H. Hottelmaier

Test Report

Page 1 of 1

Client: AGT Sanitation (PTY) LTD
Address: 229 Fred Nickleson str, Pretoria
Report no: 14180
Project: AGT Sanitation (PTY) LTD - Phokeng WWTP

Date of certificate: 12 September 2013
Date accepted: 15 July 2013
Date completed: 16 July 2013
Revision: 1

Job no:	138098				
Date sampled:	12-Jul-13				
Sample type:	Water				
Locality description:	Measurement of uncertainty	General Limit - Non Limited Water Resource	SST		
Analyses	Unit	Method			
A Nitrate (NO ₃) as N	mg/l	ALM 06	26.11	15	24.1
N Nitrite (NO ₂) as N	mg/l	ALM 07	9.45		4.39
A E.coli	CFU/100ml	ALM 40	8.43	1000	2300
N Faecal coliform	CFU/100ml	ALM 42		1000	3500
N Total coliform	CFU/100ml	ALM 40	6.61		8100
A Chemical oxygen demand (COD)	mg/l	ALM 10	18.44	75	309
N Suspended solids (SS)	mg/l	ALM 25	25	17	

A -Accredited N-not accredited O -Outsourced S -Sub-contracted NR -Not requested RTI -R200 Its to follow NATO -Not able to determine
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Laboratory Manager: H. Hottelmaier

rustenburg cleanup - phokeng wwtp



This is the state of communities when the municipal sewer infrastructure is not maintained which includes Waster Water Treatment Plants, Pump Stations and manholes.



This causes sewer to back up and overflow into the community leaving residents to live with raw sewage running past and often flooding their homes and communities bringing major health hazards to human and animals alike.



Other causes include the fact that communities can open manholes and dump their garbage into the manholes which then blocks the underground pipelines causing sewer to back up and overflow.

community spillages



Sewer overflowing from manholes and running into fields next to the township.



Standard manhole covers to be replaced with lockable covers



New lockable manholes installed



Existing trenches opened to divert sewage water



Pumpstation overgrown and debris from pumpstation screens thrown around site



Pumpstation cleaned and debris removed.



Flooded house before temporary intervention



Yard drained and crusher stone laid to provide dry access to house



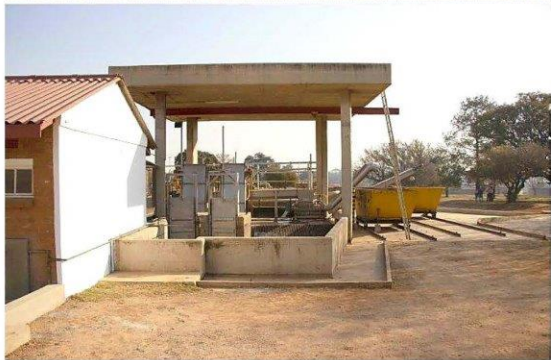
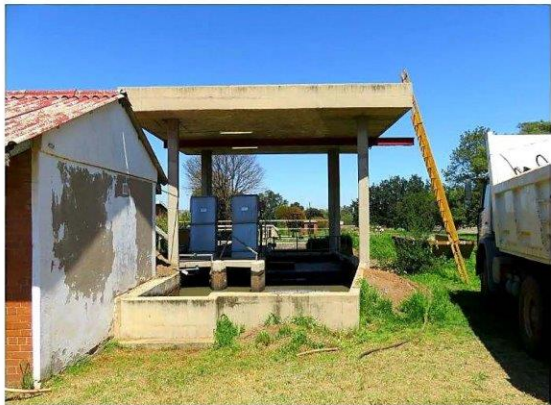
Pumpstation debris from pumpstation screens inside pumpstation.



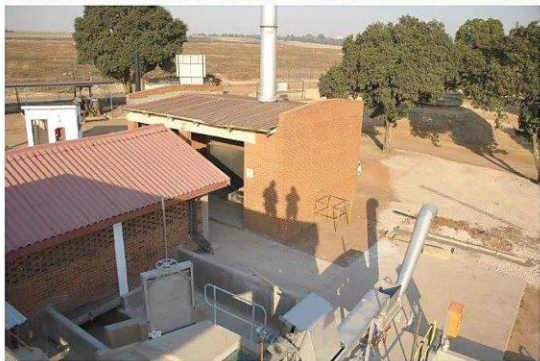
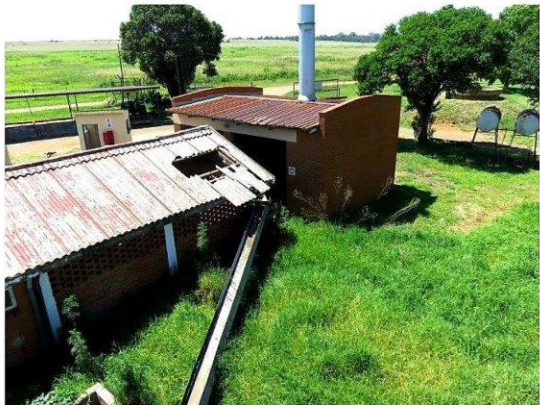
Flooded house before temporary intervention



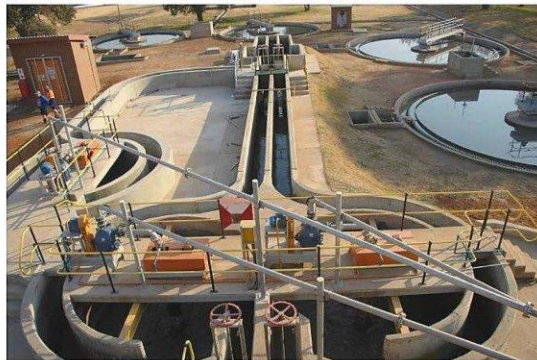
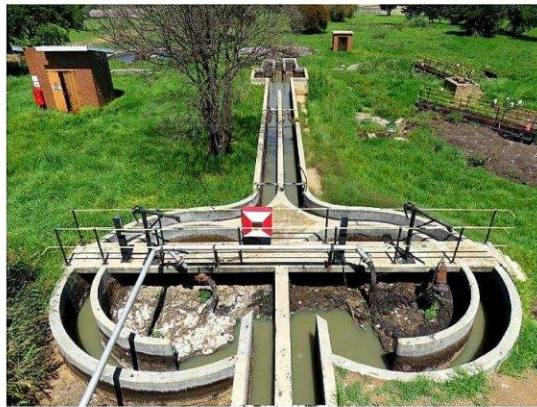
Yard drained and crusher stone laid to provide dry access to house



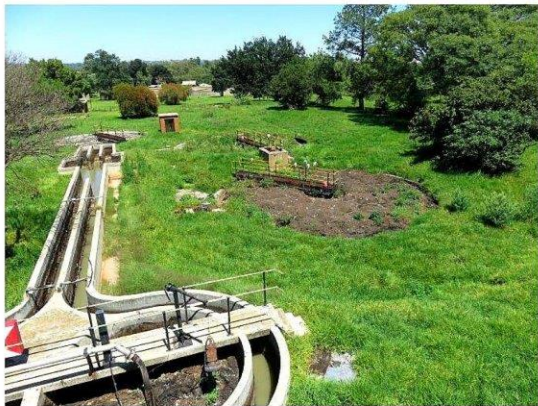
randfontein before and after



randfontein before and after



randfontein before and after



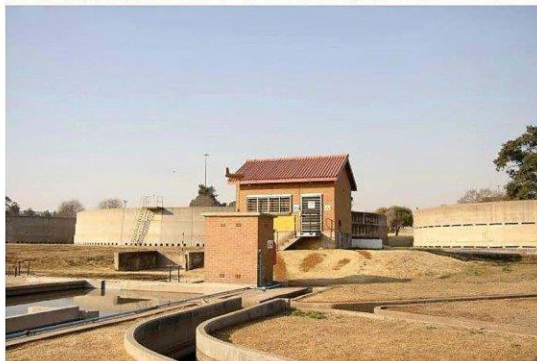
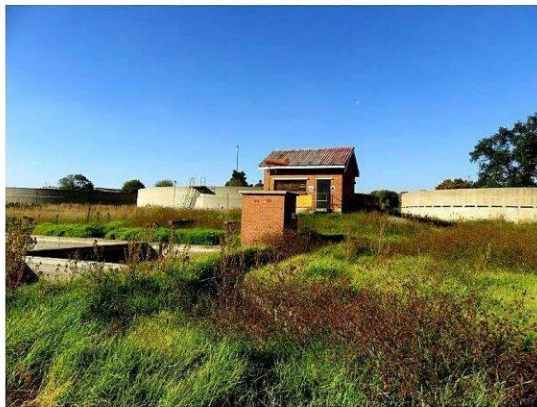
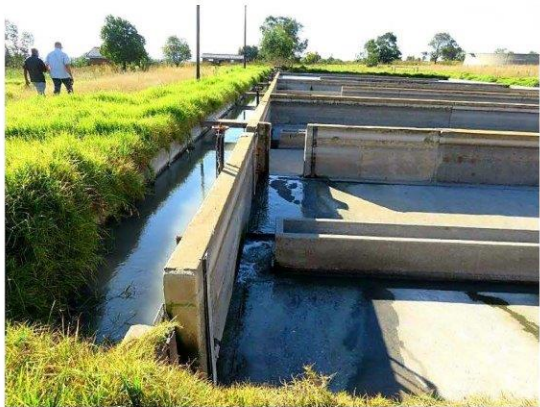
randfontein before and after



randfontein before and after



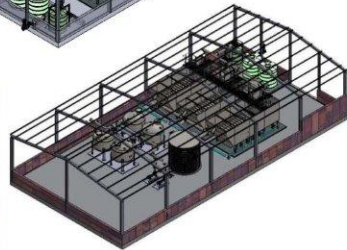
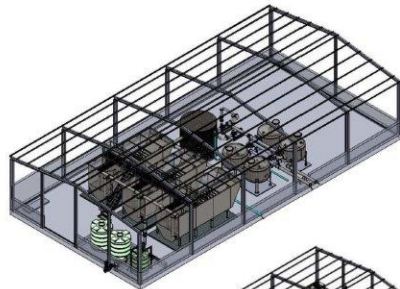
randfontein before and after



randfontein before and after



randfontein before and after



We specialise in the following water treatment disciplines:

- Water Treatment Plant
- Water Engineering
- Water Design
- Package Plant
- Water Infrastructure
- New Boreholes
- Borehole Testing
- Tanks/ Reservoirs

Current Project:
Refurbishment of
Oranjeville Water



water treatment

agt current and completed sewage projects

AGT Dredging and AGT Water and Sanitation have successfully completed various projects on behalf of our clients.

- Sewer Spillage cleanup- Metse a Lekwa - Emfuleni Municipality
- Emergency Sewer Spillage Cleanup - Makwassie - DWA
- WWTP Rehabilitation - Phokeng WWTP - Magalies Water
- De-sludging of sludge dams - Sovereign Foods - Uitenhage
- De-watering and de-sludging of Various WWTP's along the Vaal:
 - Deneysville WWTP - DWS
 - Frankfort WWTP - DWS
 - Oranjeville WWTP - DWS
 - Namahadi WWTP - DWS
 - Villiers WWTP - DWS
 - Douglas WWTP - DWS
 - Qalabotjha WWTP - DWS
 - Barkley West WWTP - DWS
 - Ermelo WWTP - DWS
 - Warrenton WWTP - DWS
 - Vrede WWTP - DWS
 - Olifantshoek WWTP - DWS
 - Dingleton WWTP - DWS
 - Debang WWTP - DWS
 - Newcastle WWTP - DWS
 - Bothaville WWTP - DWS
- Refurbishment of WWTP - Lebowakgomo - Capricorn District Municipality
- Refurbishment of WWTP - Lebowakgomo - Capricorn District Municipality.
- Refurbishment of WWTP - Randfontein Phase 1 & 2 - Rand West Local Municipality
- Refurbishment of WWTP - Badirile - Rand West Local Municipality
- Refurbishment of WTP - Oranjeville - Metsimaholo Local Municipality
- Refurbishment of WTP - Mmabatho - Ngaka Modiri Molema District Municipality
- Refurbishment of WTP - Mafikeng - Ngaka Modiri Molema District Municipality



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