



Water Treatment



TES have a world of water industry wisdom.

With immense experience in the design and build of water treatment facilities, we have throughout the years, supported water systems to provide clean water to millions of people.



TES have a wealth of experience in providing water treatment solutions for municipal, industrial and domestic sectors ranging from turnkey packages to the design and construction of extensive water treatment facilities.



Our integrated approach and all-encompassing service make us who we are. We are extremely proud of our edge in bringing technical expertise, engineering excellence, project management experience and wealth of knowledge to every project.

Founded on the ethos of Lifecycle Engineering, TES provide complete support and engineering expertise throughout the lifecycle of the project. From concept to feasibility right through to design, build, installation, operation, maintenance and support, TES oversee every stage of the project.

With ever-changing legislation and growing environmental concerns, the world of water treatment is constantly evolving. TES use only quality assured design, project management and equipment and our innovative engineers are constantly identifying emerging technologies and developments within the industry.

TES offer innovative solutions adapted to Clients' specific needs. From screening to primary sedimentation, chemical treatment to final filtration, our solutions are geared to suit specific requirements.

At TES, we assume the role of partner rather than simply contractor or supplier. We understand the needs of our Clients and will go to great lengths to deliver clear and effective solutions in water treatment.

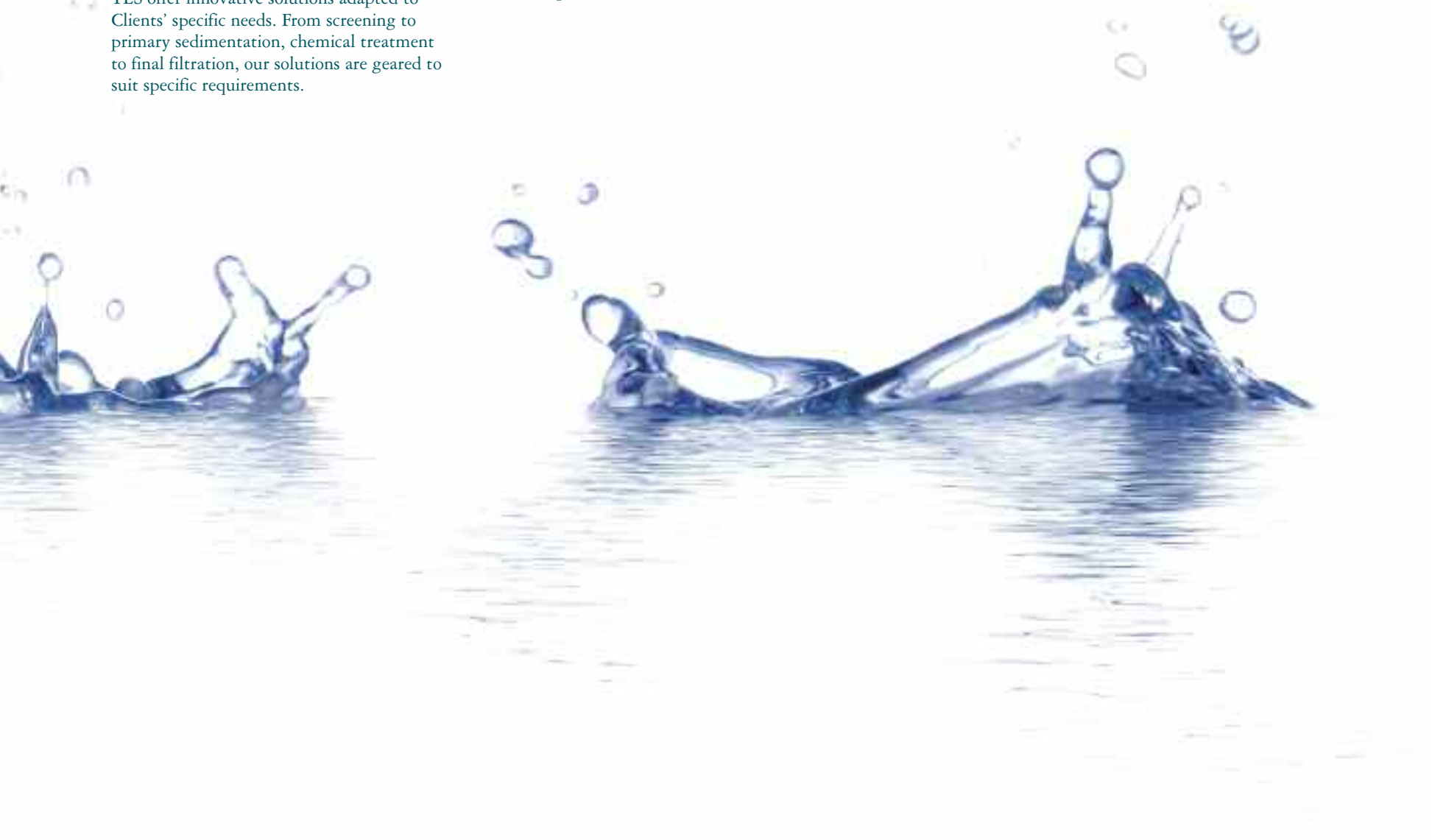
Our services include:

- WTW upgrades for process improvement and treatment capacity
- Full MEICA services for new treatment plants
- Turnkey projects
- Design, build & operate capability

At TES, we are committed to research and development, with particular focus on water treatment technologies. We take pride in finding the most cost-effective, high performance and eco-friendly solution for our Clients. Starting from evaluation of the best technical solution to installation, we can supply complete processes with excellent performance, some of which include:

- Raw water settlement & screening or ozone treatment
- Coagulation & flocculation using chemicals [poly, soda, alum etc] and settlement tank systems
- Filtration – rapid gravity media or pressure filters
- Final treatment by UV, chlorine or fluorine
- Pumping from ground source, boosting and distribution

TES understand the importance of integrating with our Clients, as we deem this critical to successful project delivery. After thorough consultation and scrupulous assessment of Client requirements, TES engineer innovative, tailor-made solutions. Our customer focused philosophy reflects our commitment to continual innovation and successful partnering.



Our dedicated team of engineers have immense experience in implementing a number of water treatment processes, including:

Flocculation - a method which clarifies the water to ensure it is clear and colourless. Clarification causes a precipitate to form in the water which can be removed using simple physical methods. Initially the precipitate forms as very small particles but as the water is gently stirred, these particles stick together to form larger particles.

Sedimentation - Water exiting the flocculation basin may enter the sedimentation basin. It is a large tank with slow flow, allowing floc to settle at the bottom. As particles settle at the bottom of the basin, a layer of sludge is formed on the floor of the tank. This layer of sludge is removed and treated. In many cases the tank can be equipped with mechanical cleaning devices.

Filtration - After separating the floc, the water is filtered as the final step to remove remaining suspended particles and unsettled floc. TES have a vast knowledge of a variety of filter methods to include rapid sand filters, membrane filters and pressure filters with various types of media.

Ultrafiltration membranes use polymer membranes with chemically formed microscopic pores that can be used to filter out dissolved substances avoiding the use of coagulants. The type of membrane media determines how much pressure is needed to drive the water through and what size of microorganisms can be filtered out.

Disinfection of water - is accomplished both by filtering out harmful microbes and by adding disinfectant chemicals in the last step in purifying drinking water.

Chemical Dosing Systems

Water treatment chemical dosing systems, complete with control panels are manufactured depending on the water quality and sized to suit the works flow.

Typical packages are sodium hypochlorite, poly acid, soda, alum and fluorine.

A chemical dosing system typically consists of the following components:

- Bulk tank
- Dosing pump
- Day tank
- Tank agitator
- Suction lines
- Dosing lines
- Pipework and valves
- Control panel or system

Pumping Systems

As a quality assured company, TES source only premium materials for our water treatment facilities and pumping stations. Our impressive portfolio and proven reputation in the design and build of pumping systems is testament to our commitment to quality.

Our range of pumping systems include:

- Underground borehole pumping
- Package booster pumping stations
- Water pumping for abstraction, filter backwashing and high lift pumping to reservoirs
- Pump types used-borehole, vertical multistage, end suction pumps and split case



TES are extremely proud of
our highly successful track
record in water treatment and
we remain committed to
playing a critical role in the
delivery of this essential
resource.



TES have supported
water systems to provide
clean water to millions
of people.



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