



# Mobile Water Services

Emergency, Planned and  
Multi-Year Water Treatment

**WATER TECHNOLOGIES**

As a global leader in mobile water services, Veolia has the resources and expertise to provide high quality, cost-effective solutions for short and medium term water treatment. We provide treated water 24 hours a day, 7 days a week, with flow rates ranging from 1m<sup>3</sup>/hr to 150m<sup>3</sup>/hr. Our proven track record for delivering a rapid response, has enabled many companies to maintain continuity of treated water supply to their core operations in unforeseen circumstances.

## What are Veolia Mobile Water Services?

Mobile Water Services provide water treatment technologies pre-packaged on a trailer, skid or container for maximum mobility and rapid response. Available as standard or modular systems they are pre-engineered with plug and play connections for ease of use.



A very wide range of water treatment technologies are available on these mobile units including:

- Multimedia Filtration • Ultrafiltration • Clarifiers
- Brackish Water Reverse Osmosis • Electrodeionisation
- Ion Exchange Softening • Ion Exchange Deionisation
- Sea Water Desalination • Membrane Degassing
- DAF • MBR • MBBR • Evaporation



## When are mobile water systems suitable?



Mobile water systems are a more cost-effective and efficient alternative to fixed plant in a wide range of industrial situations and circumstances. Furthermore, because they are classed as an operational cost they do not negatively impact the capital investment budget for utilities. They are ideal for:

- Emergency situations where existing plant has failed or where feed/cooling water has become contaminated
- Treating spent process water for re-use or discharge in accordance with environmental standards
- Short or medium term replacement for ageing plant and infrastructure that is becoming unreliable or expensive to operate and maintain
- Providing short term additional water treatment capacity for production expansion, new product trials or an uncertain product lifecycle
- Reducing raw water costs, improving the quality of the treated water and implementing a more sustainable solution

# Short, medium or longer term solutions



## Emergency – short term cover for plant failure

Water treatment plant failure is always unexpected and potentially very costly. It is vital that every business has an emergency plan in place to minimise downtime and production losses. By registering with our Treated Water Security Plan, you can ensure that the appropriate ready to go mobile water treatment resources are deployed within 4 hours of your call. Our Emergency service delivers the quality and quantity of treated water you need as quickly as possible to keep operations running smoothly while your existing plant is repaired. If you are an ISO 22301 registered company our service will also fulfil your Business Continuity Planning requirement for your water treatment.

Our Emergency service covers a wide range of unforeseen circumstances including:

- Temporary water treatment plant failure
- Unforeseen changes in the raw water supply
- Boiler or condenser leaks
- Need to comply with environmental legislation
- Increase in the demand for treated water

## Case Study

### Generating electricity from waste

The Veolia Environmental Services Energy Recovery Facility (ERF) at Newhaven, handles 210,000 tonnes per year of municipal solid and street cleansing waste from East Sussex. This waste is incinerated to fuel two 50bar water tube boilers which produce steam to drive a turbine generating 19MW of electricity.

The high pressure boilers operated at 43.7m<sup>3</sup>/h steam flow and required the water treatment plant to have an operational capability of up to 4.5m<sup>3</sup>/h of high purity water. Demineralised water was produced on site by an ion exchange plant, but during a two day control system modification the plant was unable to meet normal output quantity and quality.

Within 4 hours of contact, Veolia's Mobile Water Services had despatched two MOFI™ ion exchange units capable of delivering a continuous supply of 70m<sup>3</sup>/h of high purity water to the site. The mobile solution enabled the turbine to continue running at full capacity while the modifications were carried out.

## Planned – covers maintenance downtime

Our Planned service is designed to maintain the continuity of your treated water supply during pre-planned maintenance or refurbishment projects. We provide flexible, cost-effective and adaptable solutions that can be tailored to your particular requirements for as long as you need them – 1 day or 1 year. Our planned service is ideal for:

- Gas turbine inlet cooling
- Two shifting
- Full flow trials
- Feed water changes
- Condensate applications
- Production expansion
- Pipe work commissioning
- Boiler flush and fill
- Hydro testing
- Steam blows



## Multi-Year – reliable and cost-effective for long term requirements

Our Multi-Year service offers bespoke or standard water treatment systems for longer contract periods of between 1 and 10 years. It is the ideal way to cover periods of uncertainty over production life cycles or where capital budgets are already stretched.

- Take advantage of the latest products and technology to optimise production and save on operational costs
- Deliver higher volumes of high quality water with maximum uptime
- Achieve a reduction in raw water costs due to higher recovery rates
- Transparent fixed pricing with no unplanned extras – you only pay for what you require for as long as you need it.
- Your treated water needs are always guaranteed with priority access to our emergency fleet if your circumstances change

## Case study

### Cooling Tower maintenance

INEOS ChlorVinyls is a major manufacturer of industrial chlor-alkali chemicals, a global leader in chlorine derivatives and Europe's largest PVC manufacturer.

The company's wooden cooling towers needed to be replaced, but shutting down the entire cooling system would result in lost production.

The decision was taken to replace the towers one by one. During the process cooling water contaminated with demolition debris, flowed into the sump of the off-line tower. This water had to be treated before discharge to drain or recovery back to the cooling system.

Within days Veolia had provided a temporary water treatment plant with the capacity to process 50m<sup>3</sup>/h of contaminated water. The bespoke system, consisting of pumps and two stages of filtration, removed and retained the debris and chemicals from the water, enabling the continued operation of the cooling system.

## Case study

### Keeping the winter lights on

Indian Queens power plant in Cornwall operates at peak demand periods, to supplement electricity supplies from larger power stations. In winter months up to 170m<sup>3</sup> per day of deionised water is required to be sprayed into the burner, reducing the flame temperature and suppressing nitrous oxide emissions. Demand for water in summer months drops to just 40m<sup>3</sup> per day.

Effluent discharge from water treatment is not allowed on the site and given the seasonal demand for deionised water it was decided that a multi-year mobile water treatment plant for the winter months with a fixed Veolia demineraliser for the low demand summer months would be the most cost-effective solution.

Veolia's Mobile Water Services supplied two separate MODI demineralisation plants. The equipment being capable of providing 30m<sup>3</sup>/hr of demineralised water at <0.1 µS/cm, <10 ppb Silica – meeting and exceeding the water quality and volume requirements. Discharge of chemicals and effluent was not an issue as regeneration of the ion exchange resins takes place off site at Veolia facilities.

# Why choose a mobile water system from Veolia Water Technologies?



- Veolia has unrivalled speed of response and a proven track record within the industry
- The quality and quantity of treated water is guaranteed – 24/7
- Extensive global experience with the widest range of products and technologies available
- Priority access to our emergency fleet through our service
- Flexible contracts – the treated water volume can be increased or decreased at any time to meet changes in demand
- Fixed price contract with no hidden extras for easy budgeting
- A choice of support packages to suit your operation
  - ‘Hands off Maintenance’ – full technical and operational support are provided throughout the contract, reducing manpower and inventory management costs
  - ‘Hands on Maintenance’ – gives you full control over the production using existing resources
- Acquire the very latest technology without substantial investment in new infrastructure
- Zero accidents and full Health & Safety compliance
- A responsible, environmentally friendly and sustainable service



## Our markets

Demand for mobile water services is growing year on year. Our customers come from a wide range of markets including:

- Power generation
- Oil and Gas
- Petrochemicals
- Food & Beverage
- Pharma
- Pulp & Paper
- Metals
- Waste water

# Resourcing the world

**Veolia Water Technologies**

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