



natural waste water treatment



Expertise for best results

Whether you're thinking about a new reed bed system, or you just want some timely expert advice about effective operation, we can help. Our comprehensive range of services includes:



Consultancy: feasibility studies, process design, site surveys, landscape design, and advice on managing future changes

Project management: our experienced managers will look after your entire project from conception through to completion

Design and build: our turnkey service delivers systems on time and within budget, including liaising with regulators and enforcement authorities on your behalf

Construction service: using our design or your own, we make it easy for contractors and save our clients significant amounts of money through design reviews based on experience - without compromising quality or performance

Design and supply of materials and equipment: a service we provide on request, for example to framework contractors

Field services for system maintenance: we extend the life of your system, bring you peace of mind and help you get the best possible results

Asset assessment: we evaluate process efficiency, check your system is operating at top performance, and make recommendations

Why use reed beds?

Ever since the Chinese started using wetlands more than two thousand years ago, reed beds have been well known for their impressive effluent and water treatment properties. Reed beds provide an ideal environment for a wide range of treatment processes. The combination of micro-organisms, plant roots, rhizomes and substrate matrix remove contaminants in a variety of natural ways.

They treat waste water as it flows through the system just like the process in conventional sewage treatment, but without using energy-intensive machinery.

With low construction costs, low maintenance, low or zero power consumption and a long, productive lifespan, reed bed systems are both proven and sustainable, fitting beautifully into any landscape.

Their removal mechanisms include settlement, filtration, biological and chemical action, containment and plant uptake. *They can take care of soluble organic matter, suspended solids, ammonia, pathogens, hydrocarbons, and metals.*

They can be designed in horizontal, vertical flow or floating configurations. So they're versatile enough to deal with a variety of pollutants from industrial or municipal effluents.



Performance guaranteed

Our reed beds are used extensively for sewage treatment – at all treatment stages from raw sewage to secondary and tertiary treatment, and for sludge dewatering. They can also extend the life of older treatment works by polishing effluent: bringing it within regulator consent, and saving capital expenditure.

They are increasingly used for tackling industrial effluent. Uses range from treating fire-fighting foam and metal removal from minewater drainage, to reducing ammonia levels in leachate and removing hydrocarbons from groundwater.

Other applications include treatments connected with:

- agriculture
- pharmaceutical
- food processing
- chemicals
- refinery waste
- distillery wastewater
- SUDS
- surface run off

They can also be used to create wetland habitats – enhancing bio-diversity.

Whatever the application, we provide contractual guarantees of effectiveness, performance and quality – so you can be sure you're going to get the results you're looking for.

Harnessing natural technology

Ever since natural waste water treatment systems came of age in the 1980s, ARM Ltd has led the way in reed bed and constructed wetland technology.

Working with the UK water companies, councils, contractors, industrial clients and research institutes, we've designed, built and maintained many hundreds of reed bed systems. They range in size from 10m² up to 20,000m², and we have consulted on reed beds of many hundreds of hectares.

Harnessing natural processes, we engineer them to deliver all the advantages of cost-effective, versatile and sustainable effluent or waste water treatment - and we guarantee the performance of every system we design and install.

As the largest dedicated UK company by far in this specialised field, with a reputation dating back to 1947, ARM brings you unique expertise and experience. We can support you at every stage of the process - from the initial planning and design right through to trouble-free construction, professional service and ensuring the optimum performance of your reed bed system.

We continue to pioneer new and innovative ideas. Recent developments include aggregate recycling to reduce landfill cost and material usage, and alternative reed bed configurations to improve performance in contaminant removal.

UVDB verify

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