

The Envirogen Group

ENVIROGEN
WATER TECHNOLOGIES



Sustainable Water & Wastewater Solutions for the 21st Century



Sustainable Water & Wastewater Solutions from Envirogen

Managing water properly is a challenge and the bigger your company the bigger your challenge becomes. Now more than ever businesses are required to demonstrate a commitment to water sustainability. By 2025 it is expected that demand for water will exceed supply by more than 50% (World Water Council). Emphasizing that not only is water scarce and getting scarcer it demonstrates the importance of minimizing water consumption whilst maximizing the return. Now, more than ever, manufacturers are aware of the potential for recycling, re-using waste or for more efficient waste solutions prior to disposal

A total solutions provider

Today's best practices in water treatment focus on achieving operational efficiencies, energy reduction, environmental impact minimization and waste-to-energy solutions. At Envirogen we develop and deliver complete customer solutions for water and wastewater treatment – including services, process knowledge and tailor-made products, along with various Design Build Operate and Finance options.

Cutting edge, award winning technology and knowledge

In developing environmental and process solutions for our customers, we employ a distinctive range of high-performing technologies that are often 'best-in-class' in the applications in which we use them. We have in-house expertise and experience to deliver end-to-end water and wastewater solutions that can help your business achieve optimum performance. Our reputation is built on having some of the most knowledgeable and experienced engineers in the industry, where our bespoke solutions and 24/7 PureCare service offering gives you peace of mind and flexibility as well as greater productivity and efficiency.

Our customer-tailored solutions help improve efficiency by:

- Accelerating production
- Simplifying operations
- Reducing downtime
- Reducing waste



Why Envirogen Water Technologies?

- 1 Total Solutions Provider
- 2 End to End Water Solutions
- 3 Best Fit Technology
- 4 Lifecycle Cost Assurance Program
- 5 Design, Install and Commission Bespoke Plant
- 6 Nationwide Engineers Oncall 24/7
- 7 Up to 4 Hour Response Contracts
- 8 24/7 Telephone Support
- 9 Open Proactive Culture with "Can Do" Attitude
- 10 Environmental Technology Award Winners

Incoming Water Treatment Solutions

Incoming Water

Process Water

Waste & Effluent Treatment

Developing a sound water reuse, process water treatment, and wastewater plan is becoming essential for efficient, cost-effective, and environmentally responsible manufacturers, and doing it well is critical. It doesn't matter if the source of water is a well, river, or borehole, Envirogen's Water solutions are designed to clean the water to your exact requirements. Whether the water in question is for processing, cleaning or as feed water for your boiler, we can purify water to suit your needs.

Treating and filtering water at the pre-treatment, or incoming stage is fundamental to the efficiency of the process further downstream. Raw water can be treated by a number of technologies, depending on the nature of your application, an appropriate combination of purification technologies can be used to provide water of your required quality both conveniently and cost-effectively:

- [Multimedia Filtration Solutions](#)
- [Carbon and Resin Rebedding](#)
- [Ion Exchange & Demineralisation](#)
- [Cartridge Filtration](#)
- [Disinfection & Sterilisation including; PureChlor Chlorine Dioxide](#)
- [Membrane Technologies including; UltraFiltration & Reverse Osmosis](#)

Process Water Solutions

As you move downstream into the process water treatment stage, further treatment and filtration processes are required, to ensure, consistency, sterility, shelf-life and clarity. With so many solutions, both standard and custom, our engineers can assess your operation and offer a variety of solutions for purifying your process water. We can apply all of the right resources: technology, on-going technical support, and our extensive experience, to help reduce costs, increase efficiency, minimize your water footprint, and ensure that you have a safe, reliable supply of water.

These technologies include:

- [Membrane Technologies including; CrossFlow Microfiltration](#)
- [De-Aeration](#)
- [Cartridge Filtration](#)
- [Disinfection and Sterilisation](#)



Emergency Mobile Water Response for emergency, supplemental, or extended term service

Envirogen offers a large fleet of mobile water treatment systems across Europe, providing rapid response for a full range of water treatment and filtration solutions. We can supply high-quality water treatment systems for all kinds of temporary needs along with system analysis and design through to installation, maintenance, upgrades, and emergency response. Included are immediate system backup and support, along with in-house regional service engineers available 24/7.

Why a mobile water treatment solution might be the perfect solution:

- [Production continuity](#)
- [Meet changes in production demands and required water quality](#)
- [Save time and cost on repair projects and new plant](#)
- [Guaranteed water quality and quantity](#)
- [No outlay of capital investment](#)
- [24/7 service back up and support including where required remote access to the plant](#)



Envirogen Waste Water Treatment Solutions

- Effluent and Process Analysis
- Turnkey System Design
- Best Fit Technology
- Waste Water Re-use
- Pilot and Consultancy Services
- Design Build Operate Finance Options



Wastewater Treatment Solutions

At Envirogen, we have a thorough understanding of the challenges of wastewater treatment, and appreciate the pressure manufacturers are under to reduce their usage and costs. We offer a suite of technologies to treat the dirtiest of water. Water cleaned can then be reused or safely discharged, thus reducing the environmental impact. Where required and for more complex situations, Envirogen can integrate a variety of technologies into a comprehensive solution that sits alongside your process manufacturing plant.

Wastewater treatment is an important issue for industrial sites since it ensures that the water from the production process does not harm the surrounding environment and allows the site to operate by meeting local authority discharge standards. Treating industrial effluent comes at a cost and can sometimes lead to complicated problems in terms of running the facility. That is why it is important to choose the right treatment methods, and, operate and maintain facilities in accordance with best practices.

Cutting Edge Water Technology Platforms

Our Wastewater solutions are extensive, In developing environmental and process solutions for our

customers, Envirogen employs a distinctive range of high-performing technologies that are often 'best-in-class' in the applications in which we use them. These include one of the industry's leading biological treatment portfolios as well as ion exchange and physical-chemical systems with broad-spectrum applicability and high performance based on expertise with adsorptive and other media.

Wastewater Technologies Include:

- **Conventional Wastewater Treatment**
 - Flow balancing & pH correction
 - DAF (dissolved air flotation)
 - Physio-chemical treatment
 - Coagulation & sedimentation
 - Direct filtration
- **Advanced Wastewater Treatment**
 - MBRs (membrane bioreactor)
 - Anaerobic & Aerobic treatment
 - FBR (fluidised bed reactor)
 - SCR (suspended carrier reactor)
 - Recycle Water Systems
 - Rinse Water Recovery

Bioreactors & Biofilters	Physio-Chemical	Ion Exchange/ Absorptive	Recycle & Re-use
Membrane Bioreactors (MBR)	Flow balancing & pH adjustment	SimPACK™	Microfiltration (MF)
Suspended Carrier Reactors (SCR)	Dissolved Air Flotation (DAF)	MinX™	Ultrafiltration (UF)
Fluidized Bed Reactor (FBR)	Coagulation/ Sedimentation/ Flotation	MinFLEX™	Ultrafiltration/ Reverse Osmosis/ Ultraviolet (UF-RO-UV)
P & H Series Biofilters	FlexiSorb™		Rinse water recovery
Biotower scrubbers (air)	HyperSorb™		

Lifecycle Performance Approach

At Envirogen, we understand that by far the most important – and often the most expensive part of a treatment system installation is the operating cost over its 10-20 year life. If the long-term operating costs of a system are not properly considered along with the invested capital, the system may not achieve the efficiency or financial performance originally expected of it.

Nowadays it is not enough just to examine the initial capital costs of water treatment plant. The ongoing lifetime costs of a system including, support and upgrades need to be considered carefully too. Cash purchases are not necessarily the best choice and do not always provide for future changes, upgrades or expansions. We also understand the constraint of potential capex funds. Our Finance Options provide a totally flexible solution to help our clients purchase the best technology now and spread the cost over the equipment's life, ensuring you get the water and wastewater treatment solution best suited to your needs rather than what budget dictates

Our cost assurance options range from basic O&M support services, through to DBO options and financing options. The Design, Build, Finance, Operate option is an integrated approach that delivers all project services under one contract, with a single point of responsibility and simplified oversight for the project owner. DBO is often selected to attain the best value while meeting schedule, cost and quality assurance goals.

DESIGN – we provide all the design functions that projects may require, including treatment plant design, collection and distribution system design, permit applications, facility planning, performance reviews, proposal analysis, owner representation and value engineering. Our team can manage the entire process.

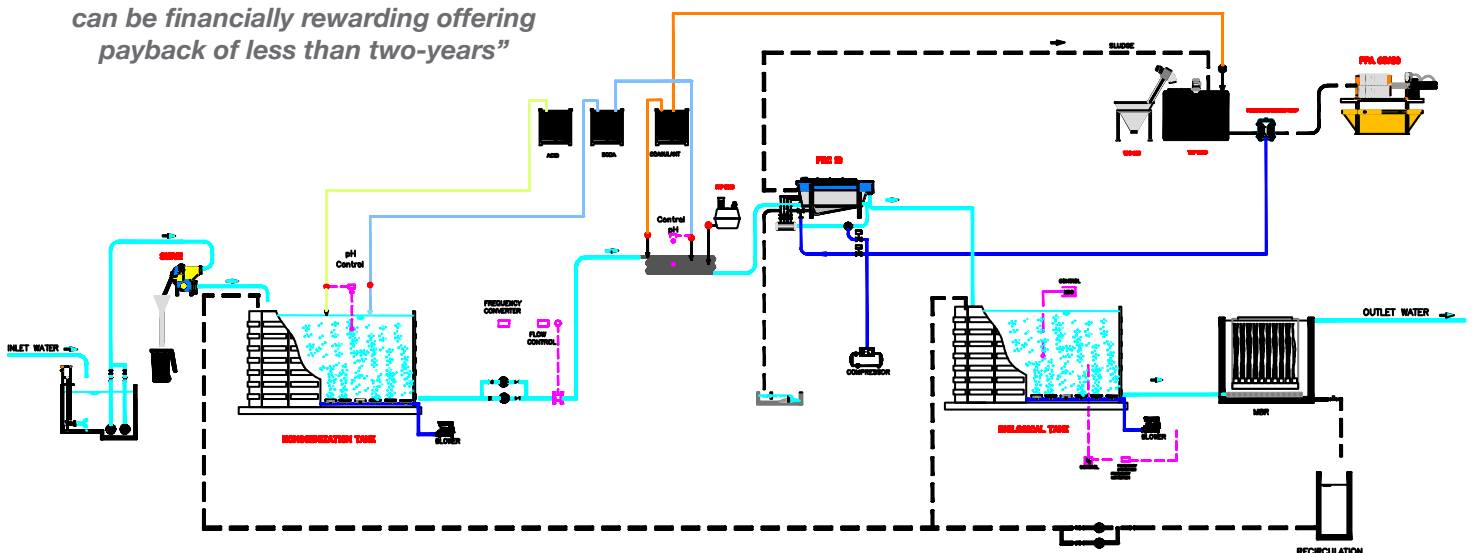
BUILD – Clients receive superb quality construction and outstanding compliance with all applicable codes and requirements. When appropriate, we work alongside well-proven contractors, all of whom are highly qualified professionals and are licensed and insured

OPERATE – We provide operation support throughout the UK offering services that include new plant start-up, process control, systems maintenance, water sampling and pre-treatment programs. All of our technicians and operators are highly trained and licensed.

Benefits of the Envirogen Lifecycle Cost Assurance Program:

- Predictable and guaranteed costs for the lifetime of the asset
- Less or No up-front capital cost required for effluent treatment investment freeing up cashflow
- Guaranteed performance, repair, maintenance costs, and regulatory compliance
- Risk protection via performance and cost guarantees
- Improved budget management (avoid unbudgeted cost)
- Cost-effective access to industry specialists
- Continual process improvements
- Environmental and sustainable obligations met
- Add to bottom line profit and enjoy ROI immediately

“Closed loop waste water recycle plants are now technically feasible and can be financially rewarding offering payback of less than two-years”



Consultancy Services, Site Audits and Pilot Plants

Our in-house experts help clients achieve wastewater treatment efficiency, compliance and sustainable business success in highly regulated industries. To determine the optimal solution for wastewater treatment applications, our consultancy service starts with a thorough analysis of the specific situation including on-site audits. If data is missing or cannot be calculated, we measure key parameters, or guide analytical work, as necessary. Where required Envirogen can advise and/or apply for the relevant Environmental Agency permits on behalf of our client.

Envirogen provide a complete range of testing facilities from a simple bench-scale treatability trials, used to determine the treatability of a wastewater, through to the development and operation of bespoke pilot plants to verify the chosen technologies. We can design, build and operate pilot plants to specification or provide staff and analytical support to provide an independent assessment for an existing pilot plants and installations.

PureCare Maintenance and Service Agreements

Your water and wastewater treatment plant needs to run efficiently, 24 hours a day, seven days a week, as problem free as possible, working at its peak performance ensuring maximum efficiencies. That's why the Envirogen Group have a range of PureCare Service and Maintenance Programmes

The PureCare Service and Maintenance Agreements offer peace of mind, security, reliability and flexibility. Clients can choose the level of support required depending on the application, operation and budgetary requirements giving optimum performance at an affordable price.

ONSITE Response - experts are at your side when you need them.

The PureCare Service is available nationwide and around the-clock with the specialists you need. Our response time – means ONSITE response within the agreed time.

Instantaneous Reporting and Information at your fingertips

Our service engineers are equipped with the latest technology, giving you instant information, providing faster access to recommendations, spare part supply, support and billing data. Replicated to the web, customers can log on to a personalised web page to look up historic information.

- **PureCare Standard** – planned service visits and preventative maintenance to ensure efficient running of your plant. Call out is usually within 48 hours.
- **PureCare Priority Plus** – as above but call out time is guaranteed within 24 hours.
- **PureCare Priority Response Plus** - As PureCare Standard, but the onsite call out response time is guaranteed within 8 or 24 hours – depending on your choice. The annual consumable pack (where applicable) is included with reduced labour call out costs.
- **PureCare Ultra** - As PureCare Standard, but the onsite call out response time can be a guaranteed choice of 4, 8 or 24 hours. The annual consumable pack (where applicable) is included, along with all parts and an unlimited number of call outs.

Why choose PureCare?

- 1 **Nationwide Coverage of In-House Experienced Engineers**
- 2 **Remote Plant Monitoring**
- 3 **Onsite Response**
- 4 **Spare Parts Carried by All Engineers**
- 5 **Dedicated UK Based Scheduling Team**
- 6 **24/7 Telephone Support**
- 7 **Flexible Approach to Ensure Optimal Operation**
- 8 **Peace of Mind**



The Envirogen Group: Innovation, Engineering and Service for the 21st Century



Puresep Technologies is a division of the Envirogen Group.

At the Envirogen Group of companies, our vision is straightforward – to be the industry leading water, waste water and process filtration provider using sophisticated technology backed by expertise and service.

It is our goal to help our customers solve complex challenges related to water availability and quality, to increase productivity, reduce costs and help meet environmental regulations and sustainability targets, through innovative solutions that deliver consistently reliable performance at the best lifecycle cost.

The Envirogen Group brings expertise and knowledge through specialist business divisions across the globe, specialising in key markets, applications and products. With offices and manufacturing facilities in the UK, Italy and USA, and a regionally based team of engineers, Envirogen is well placed to respond to the needs of its customers.



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