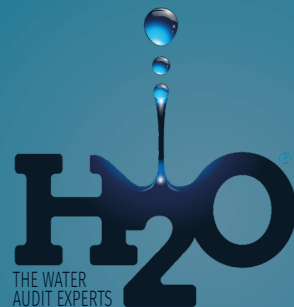


# WASTEWATER MANAGEMENT

## YOUR GUIDE TO WASTEWATER MANAGEMENT

Businesses reviewing their processes and procedures where water usage is concerned should make sure they include wastewater management in their assessment, so they know they're doing all they can where responsible use of water is concerned.



But what does this actually mean with regards to wastewater? And do you even know what wastewater is? Quite simply, wastewater is water that is either no longer required or that is no longer suitable for use, formed from activities such as toilet flushing, rainwater runoff, washing and bathing, all of which has been contaminated or contains pollutants that could find their way into our lakes, rivers and oceans.



### WHY WASTEWATER TREATMENT IS IMPORTANT

Global water resources are coming under increasing pressure

because of urbanisation, industrialisation, exploding population growth and intensifying food production, particularly in towns and cities, and developing nations.

The amount of wastewater produced is also on the rise, so it's essential that businesses prioritise management<sup>1</sup> and treatment of it in order to safeguard our freshwater resources, as well as our fragile ecosystems along the coast.

Recent research from Green Facts<sup>2</sup> shows that food production uses

# 70 to 90%

of the freshwater we have

and a lot of this water is then returned to the system along with added contaminants and nutrients. Apparently, up to 90 per cent of wastewater makes its way – untreated – into densely populated coastal areas, which contributes to the growth of marine dead zones.

These already cover approximately the same area as the entire world's coral reefs, leading to further biodiversity losses and ecosystem resilience, undermining future prosperity and sustainable living.

As Green Facts explains, **there are currently 1.2 billion people now living in places experiencing water scarcity** – and this is expected to increase to three billion by 2025. As such, wastewater treatment must be considered as an essential part of the solution to global water shortages.

Not only that but the social, environmental and financial costs linked to water quality and availability are predicted to increase dramatically unless wastewater management is made a top priority.

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### HOW IS WASTEWATER TREATED?

Appropriate collection, treatment and discharge of

wastewater in the UK helps to protect and improve the country's water quality.

According to the Department for Environment, Food & Rural Affairs<sup>3</sup>, around

## 347,000km of sewers

collect more than

## 11 billion litres

of wastewater every day, treated at around

## 9,000

## sewage treatment works

before the effluent is then discharged to inland waters, estuaries and the sea.



Public health problems would be created and the water environment damaged if this wastewater wasn't suitably treated.

Untreated sewage contains bacteria, chemicals and organic matter like proteins, fats and carbohydrates.

Naturally occurring bacteria in our waters will break these substances down but to do so they need to use oxygen dissolved in the water itself. Large untreated discharges of urban wastewater can mean that there's not enough oxygen left in the water for aquatic life to survive. So wastewater is treated to remove organic substances and prevent this from happening.



There are three types of treatment – primary, secondary and tertiary. Primary treatment involves the reproduction of what would occur in the natural environment to settle out solid matter. Secondary treatment uses bacteria to digest and breakdown the organic substances, while tertiary treatment is occasionally necessary to help protect water environments.

It involves disinfected treated effluent to protect bathing or shellfish waters and can also involve removal of nitrates or phosphorus to protect waterways that are threatened by eutrophication (excessive amounts of nutrients in bodies of water, often down to runoff from the land and which results in dense growth of plant life).



Treating wastewater means it can be returned to the environment where it can then help to maintain river flows, important for the likes of fishery, conservation and abstraction.



### HOW H2O BUILDING SERVICES CAN HELP YOUR BUSINESS

It might be beneficial to get in touch with trade effluent<sup>4</sup> and wastewater cost reduction experts like H2O Building Services to make sure that your business is meeting its legal obligations in full and that you're complying with your trade effluent discharge consent.

We're able to accurately monitor what you're discharging to make sure you're only paying for what is being discharged in terms of content and volume, rather than estimated bills that are likely to be in the favour of the sewerage company in question. We can then work alongside you to reduce your trade effluent discharge volume chemical oxygen demand and suspended solids.



1. [www.h2obuildingservices.co.uk/our-services/water-management/](http://www.h2obuildingservices.co.uk/our-services/water-management/)

2. [www.greenfacts.org/en/wastewater-management/l-2/index.htm](http://www.greenfacts.org/en/wastewater-management/l-2/index.htm)

3. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69582/pb6655-uk-sewage-treatment-020424.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69582/pb6655-uk-sewage-treatment-020424.pdf)

4. [www.h2obuildingservices.co.uk/our-services/trade-effluent/](http://www.h2obuildingservices.co.uk/our-services/trade-effluent/)

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