

# Greenhouse Gas Emissions Annual Report

AffinityWater





# Our Environment

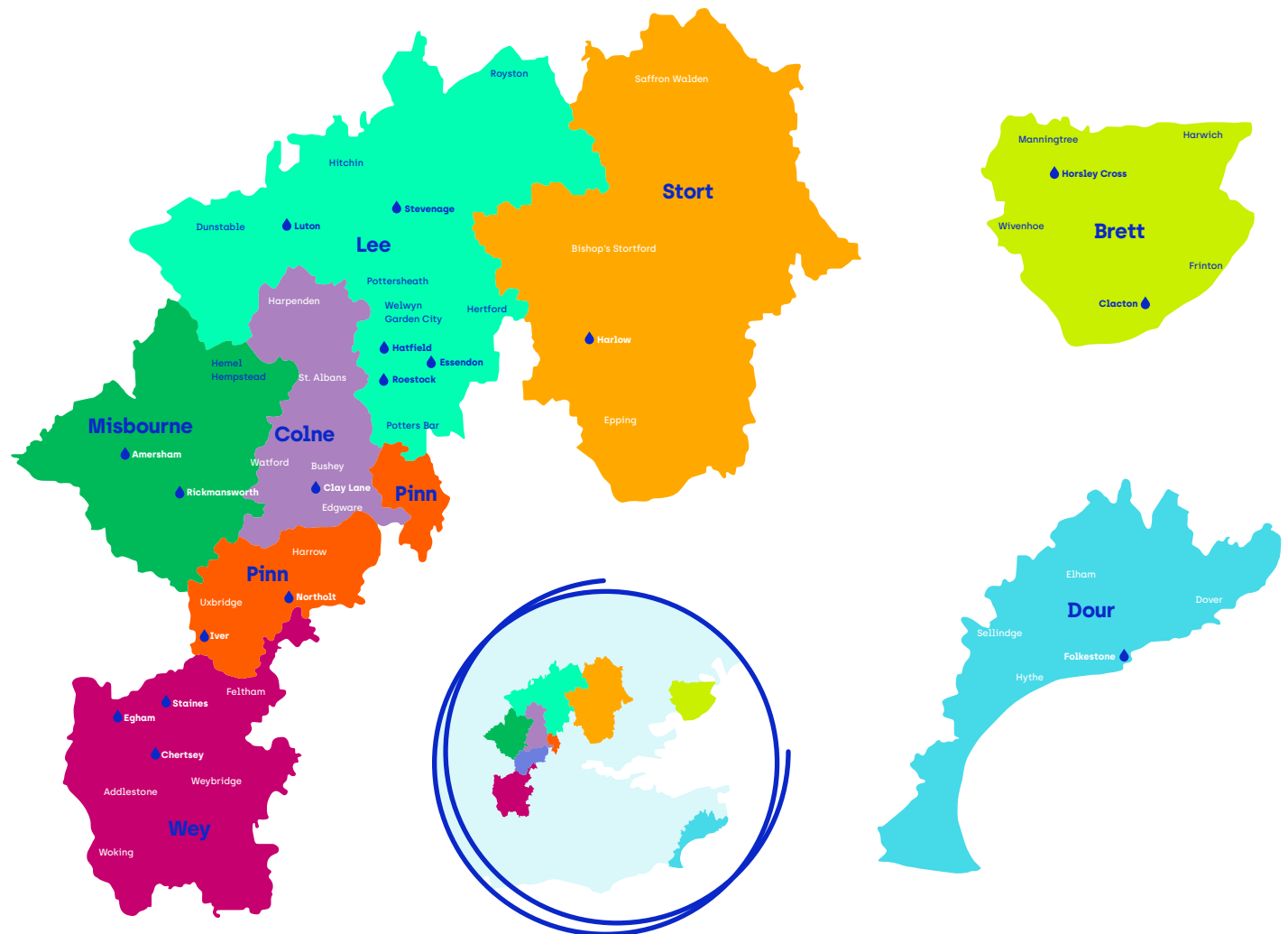
Affinity Water are the largest water-only supply company in the UK. We provide, on average, 950 million litres of water each day to a population of more than 3.83 million people across three supply areas in the southeast of England.

We operate in a supply area which is uniquely home to 10% of all globally rare chalk streams, so we need to ensure we abstract sustainability to protect these vulnerable chalk streams. Moreover, our population is growing, which means the demand for water is increasing, and, because of climate change, we are more susceptible to more frequent and extreme weather events.

To ensure we can provide a long-term sustainable supply of high-quality water, whilst protecting our environment for our communities now and in the future, we are committed to reducing our greenhouse gas emissions and implementing action plans working towards our net zero target.



## Our water resource regions



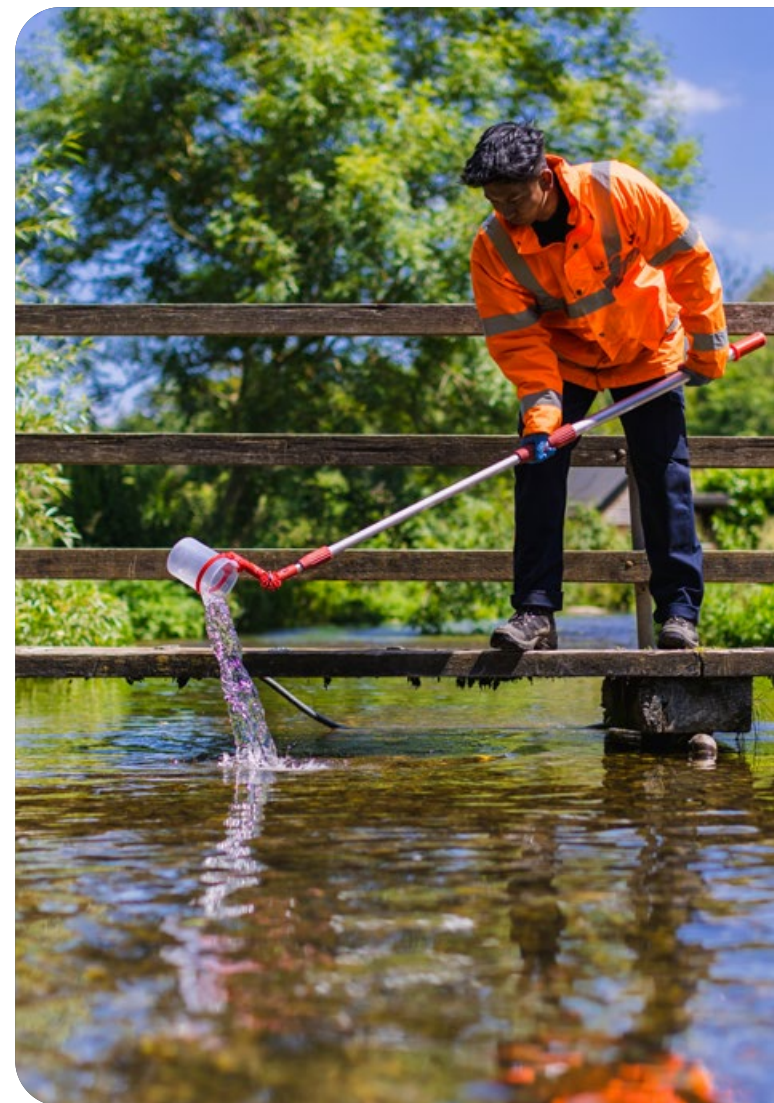
# Our Approach

Affinity Water has been monitoring and reporting its greenhouse gas (GHG) emissions for over 10 years. The publication of our second greenhouse gas report is a continuation of our journey to improve the quality and transparency of our reporting, with this latest report for 2023/24 which includes our full carbon footprint. Our carbon footprint is a measure of the amount of carbon dioxide released into the atmosphere as a result of all our activities.

We have included all greenhouse gas emissions that have arisen within the activities of Affinity Water during the period 1st April 2023 – 31st March 2024. The financial year 2022/23 has been selected as our baseline year as it is the first calculation of our full carbon footprint.

We use a combination of methods to calculate our GHG emissions, following the principles of the 2015 GHG Protocol Corporate Accounting and Reporting Standard. The majority of our GHG emissions are calculated using a specific water industry tool as required by our regulator, Ofwat. Where it is not possible to calculate emissions directly, we use other recognised methods of calculation.

Over time we are improving our emissions reporting by capturing and utilising greater amounts of data on the activities that give rise to GHG emissions. We continue to better understand all GHG emissions that the company is responsible for across Scopes 1, 2 and 3, and are striving to reduce our emissions in line with the UK targets to achieve net zero across all emissions by 2050.



Our carbon footprint is stated in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) and is compiled to agreed international standards, including all sources that are material to the company's operations. These are then categorised into three scopes as follows:

### Scope 1

#### Direct emissions



Fuel use



Fleet  
fuel use



Treatment  
processes

Scope 1 emissions arise from activities we own or control directly, including those from our treatment processes, company vehicles, and burning of fossil fuels for heating.

In 2023/24, our scope 1 emissions were 4,995 tCO<sub>2</sub>e, making up 3.2% of our total emissions.

### Scope 2

#### Emissions arising from purchased electricity



Scope 2 emissions (indirect emissions) are caused indirectly from the generation of electricity that we purchase and use. This is calculated using the average emissions intensity of our local power grid.

Our scope 2 emissions made up 28.4% of our total emissions in 2023/24.

### Scope 3

#### Indirect emissions arising from:



**Purchased goods & services**  
i.e. chemicals,  
contractor services.



**Capital Goods**  
i.e. relating to pumps  
and equipment.



**Energy & Fuel related**  
i.e. relating to  
transmission and  
distribution of  
electricity



**3rd party  
Transportation**  
i.e. Courier services



**Waste**  
i.e. disposal or  
processing of waste.



**Employee  
Commuting**



**Business Travel**



**Leased Assets**  
i.e. from the operation  
of assets we own  
but are leased to  
other entities.

Scope 3 emissions arise from activities we do not own or control, but which we can influence. These arise across our value chain, both upstream and downstream, from the products and services we buy.

In 2023/24, our scope 3 emissions made up 68.4% of our total emissions.

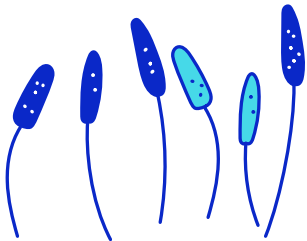
# Affinity Water Carbon footprint

This table provides a breakdown of our GHG emissions from both 2022/23 and 2023/24.



Table 1 Affinity Water Carbon Footprint

GHG Emission Source	22/23 Gross [tCO <sub>2</sub> e]	2023/24 Gross [tCO <sub>2</sub> e]
Scope 1		
Fuel combustion	1,578	982
Process and fugitive emissions	2,189	1,943
Vehicle fleet	2,147	2,070
Scope 2		
Purchased electricity	43,623	45,053
Scope 3		
Category 1: Purchased goods and services	38,407	50,546
Category 2: Capital goods	22,173	31,236
Category 3: Fuel- and energy-related activities [not included in scope 1 or scope 2]	16,212	15,185
Category 4: Upstream transportation and distribution	238	317
Category 5: Waste generated in operations	7,425	10,053
Category 6: Business travel	228	227
Category 7: Employee commuting	1,064	836
Category 13: Downstream leased Assets	209	197
Total emissions	135,493	158,645





## Change in emissions

To evaluate our progress in reducing emissions it is helpful to understand the activities which have led to GHG emissions arising. Our total energy consumption has decreased by 5.7% from 2022/23 to 2023/24. This has resulted in a 13% reduction in scope 1 emissions. This is due to a reduced use of diesel-powered standby generators to provide power to our operations.

Although we used 3.7% less electricity in 2023/24 compared to 2022/23, our scope 2 emissions have increased due to an increase in the UK grid average emissions factor.

Scope 3 emissions have also increased for the following reasons:

- Category 1 emissions increased due to improved data collection and accounting.
- Category 2 emissions increased due to spending more on emission intensive goods such as civil works and pumps.
- Category 5 emissions increased by 33%, driven mainly by a 23% increase in the total amount of waste we produce. The amount of water treatment waste we produce is driven by a variety of factors including demand for water and changes to river water quality [which is typically driven by the prevailing weather conditions].

## Energy Efficiency

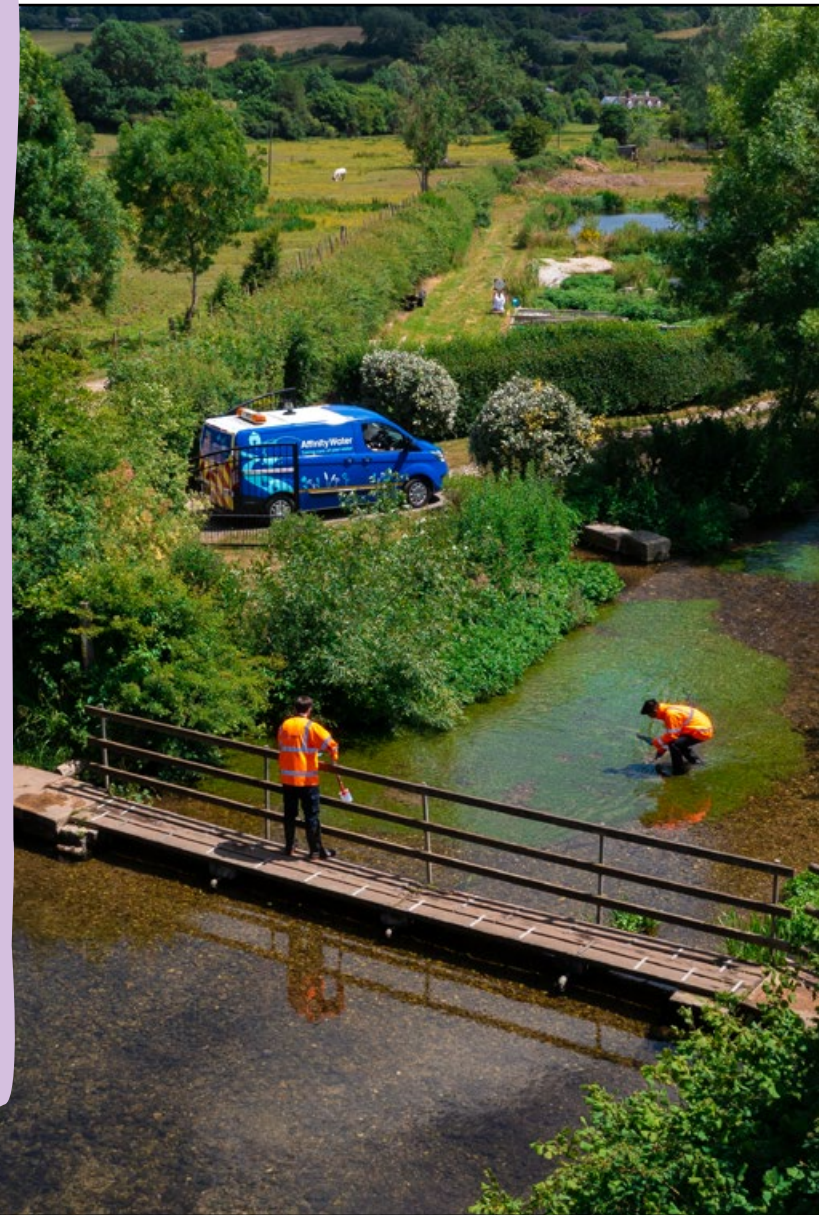
In 2023/24, we continued to focus on improving our energy efficiency, with the energy intensity of our operations improving. In 2023/24 on average, we used 606 kilowatt hours (kWh) of energy to supply one million litres (ML) of water. This compares to 629kWh per ML of water into supply in 2022/23.

We implemented 14 energy efficiency schemes through our pump replacement programme, which are expected to save around 1.2 Gigawatt hours (GWh) per year.

Our solar installations continued to provide renewable energy to our sites at Chertsey and Walton generating a combined 1.6GWh, and we undertook construction of two new sites which will increase our generating capacity to around 4GWh per year going forwards.

We remain committed to reducing our emissions going forwards with a focus on our direct emissions and increasing energy efficiency.

**1.6GWh**   
generated from our solar installations  
at Chertsey and Walton



# AffinityWater

