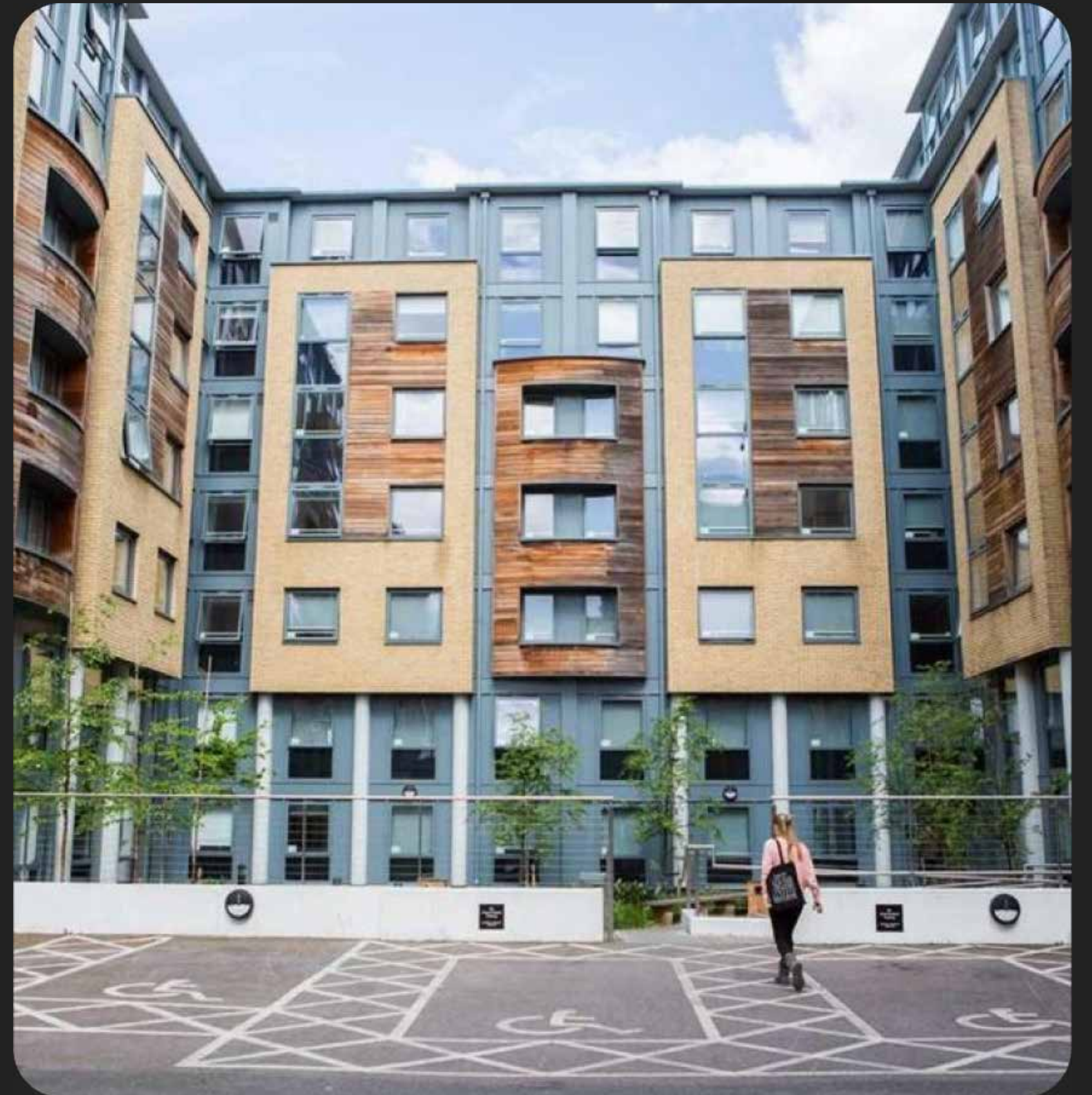


watergate® + GREYSTAR®

**From hidden leaks to
big wins: Greystar's
68% water savings
success**

watergate.ai



Executive summary

In partnership with Watergate, Greystar, a global leader in the living sector, discovered major financial, operational, and environmental benefits by implementing Watergate's innovative smart water system in its student accommodation portfolio in London.

Having piloted it first, Greystar decided to deploy Watergate at scale across three buildings in Islington. This initial project uncovered hidden inefficiencies, prevented water damage, and is delivering measurable results.

This case study demonstrates how a simple yet powerful solution is transforming water management for one of the world's largest rental housing operators.

Key results

£111,000+

in annual savings identified through reduced water consumption, energy bills, insurance and maintenance costs.

68%

reduction in water usage identified, equating to more than **2 million litres saved monthly**.

26 tonnes

of annual CO₂e reductions identified, enhancing Greystar's sustainability leadership.

Objectives

Greystar's primary goals for implementing Watergate systems included:

**Real-time water monitoring
and leak prevention**

**Legionella risk management
and compliance**

**Data-driven insights for
sustainability and ESG**





From hidden leaks to big savings

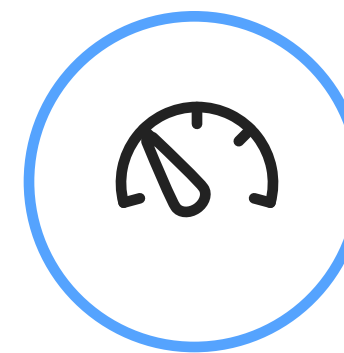
The Watergate system revealed enormous opportunities for Greystar's water management. Following an initial pilot, the technology was rolled out across three student accommodation buildings at Chapter Islington, covering 684 apartments and communal spaces in mid 2024.

Insights gathered during the project enabled Greystar to address issues promptly, avoiding significant water waste and operational risks and now empowers them to tackle any new risks proactively.



Widespread inefficiencies

22% of units (a mixture of rooms and studio apartments) were consuming significantly more water than expected, often due to hidden issues like leaky taps or toilets.



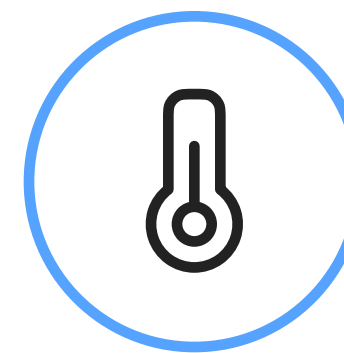
Pressure imbalances

Incorrectly configured pressure-reducing valves were identified, with some set too high (above 4bar), causing unnecessary wear on appliances, while others were set too low, leading to dissatisfaction from residents.



Extreme cases

One apartment was using up to 11,600 litres of water daily, 232 times more than the expected amount (the expected cold water consumption of a single occupancy studio is 50L per day¹), due to a stuck toilet flush.



Temperature issues

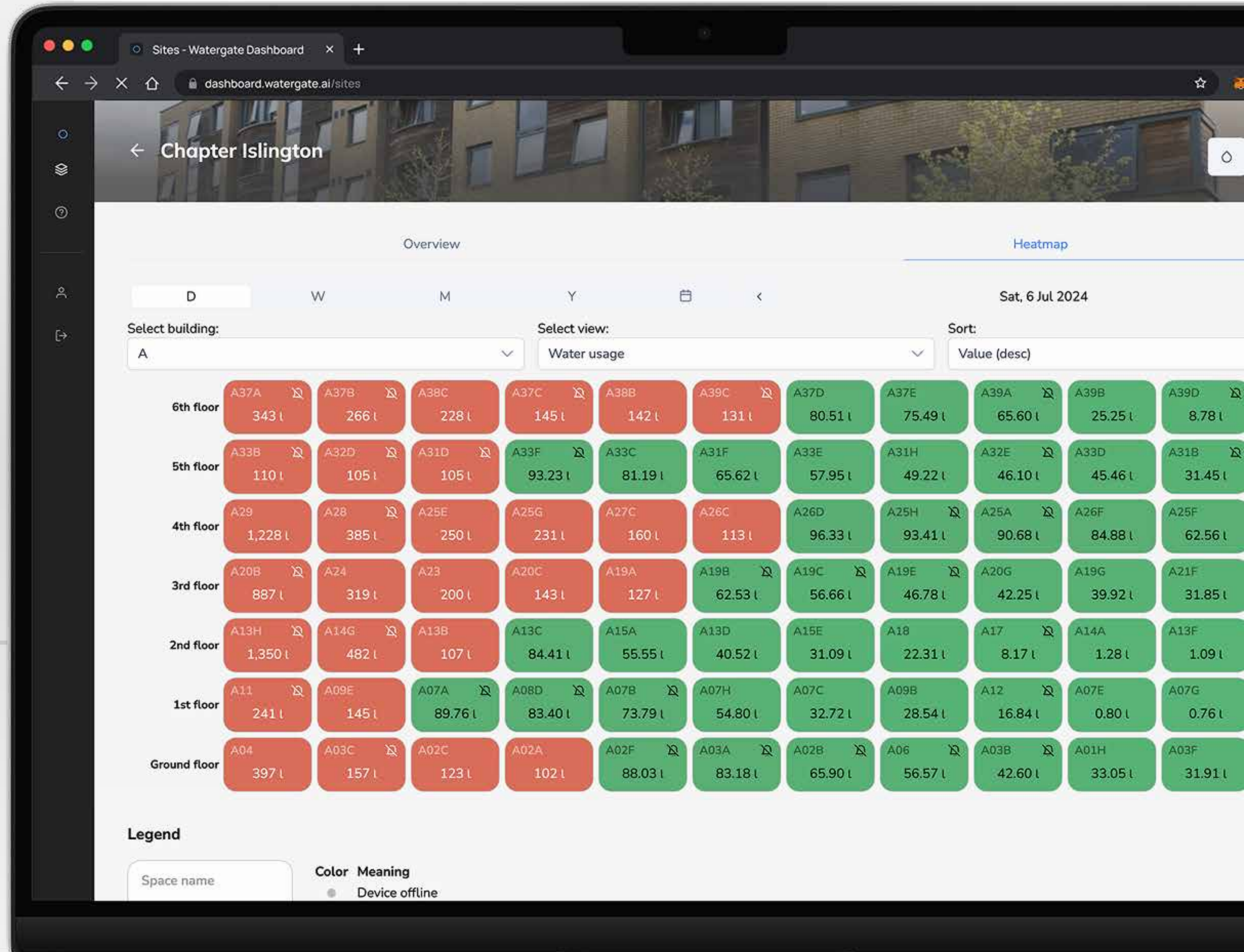
Hot water systems were running excessively high, wasting energy, while cold water systems were at risk of Legionella due to improper pipe proximity.



Unusual long flow event identified in one of the apartments.

Heat maps within the dashboard give a real-time view of water use, temperature and pressure and quickly identify anomalies.

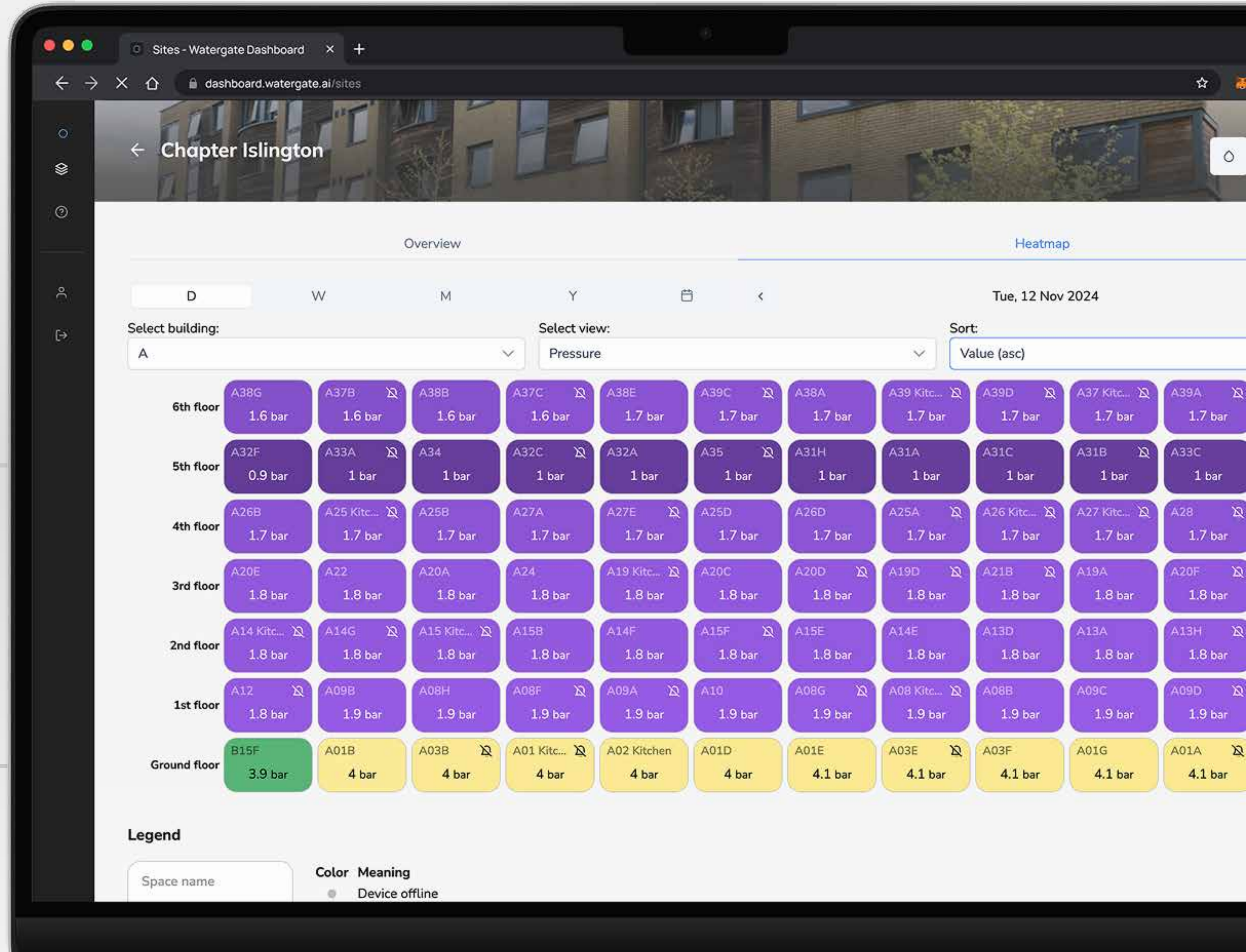
Extreme water use cases



Heat maps within the dashboard give a real-time view of water use, temperature and pressure and quickly identify anomalies.

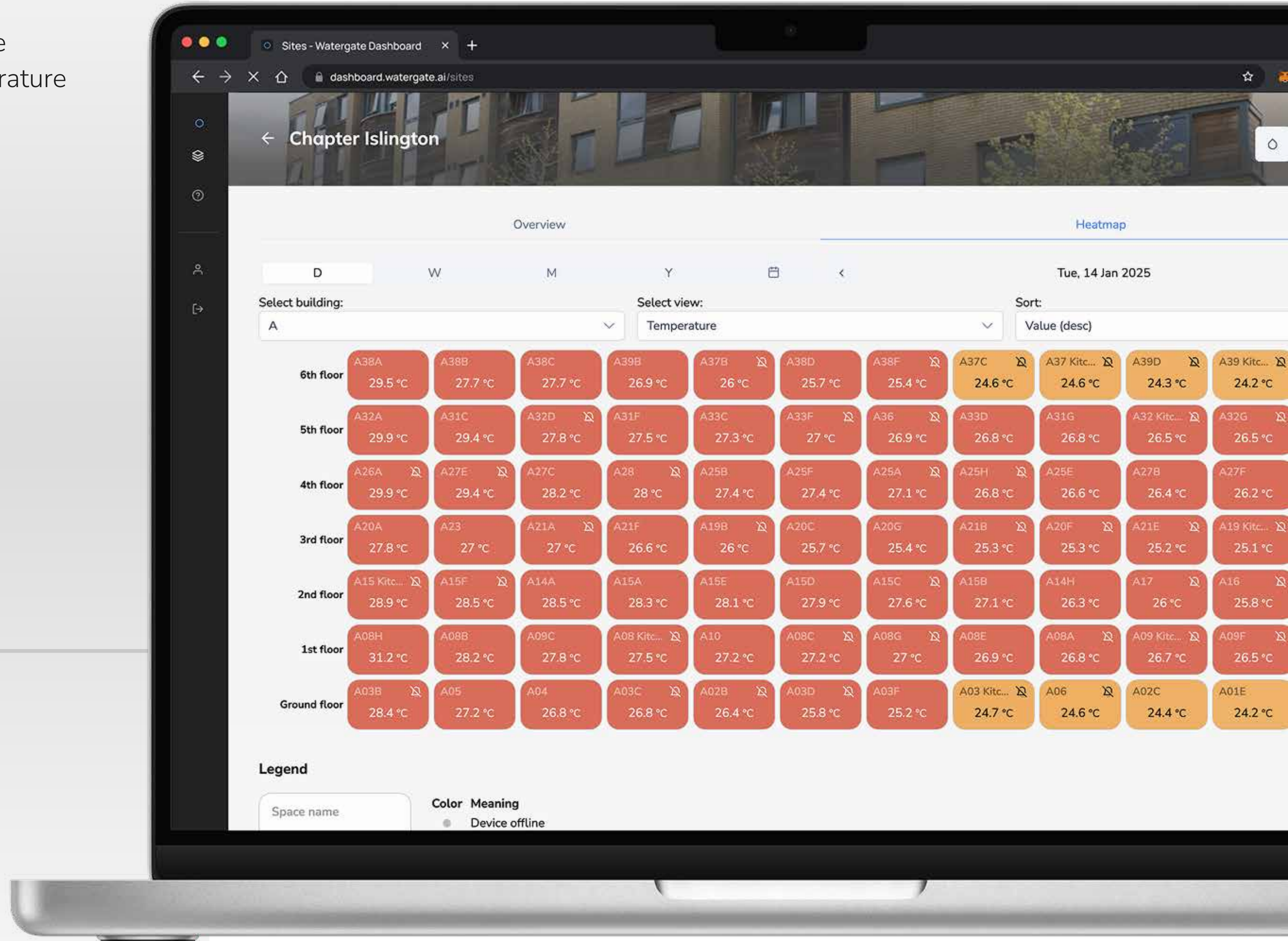
Water pressure too low

Water pressure too high



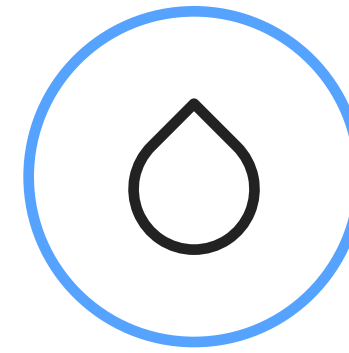
Heat maps within the dashboard give a real-time view of water use, temperature and pressure and quickly identify anomalies.

Water temperature too high



Transforming sustainability goals into measurable impact

By integrating Watergate's Sonic smart water system, Greystar achieved a range of impressive results that highlight the system's effectiveness and value.



Water efficiency savings

Identified 2,042,173 litres per month of potential water reduction savings². Within just one month of identifying inefficiencies, Greystar implemented targeted repairs that have already saved nearly 1 million litres of water per month.



Financial savings

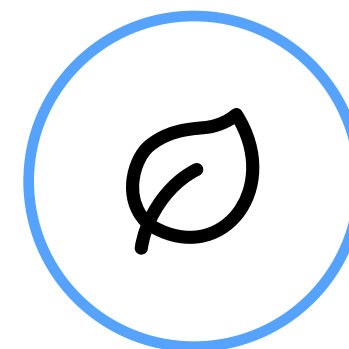
Identified direct annual savings of £111,523:

- £87,977 from water bills³,
- With a high insurance excess, Greystar has reduced their financial exposure by an estimated £23,546 per annum, with an additional potential premium reduction going forward⁴.
- Additional energy savings from using less hot water are likely but, as yet, unquantified.



Operational efficiency

Proactive maintenance reduced disruptions and enhanced resident satisfaction.

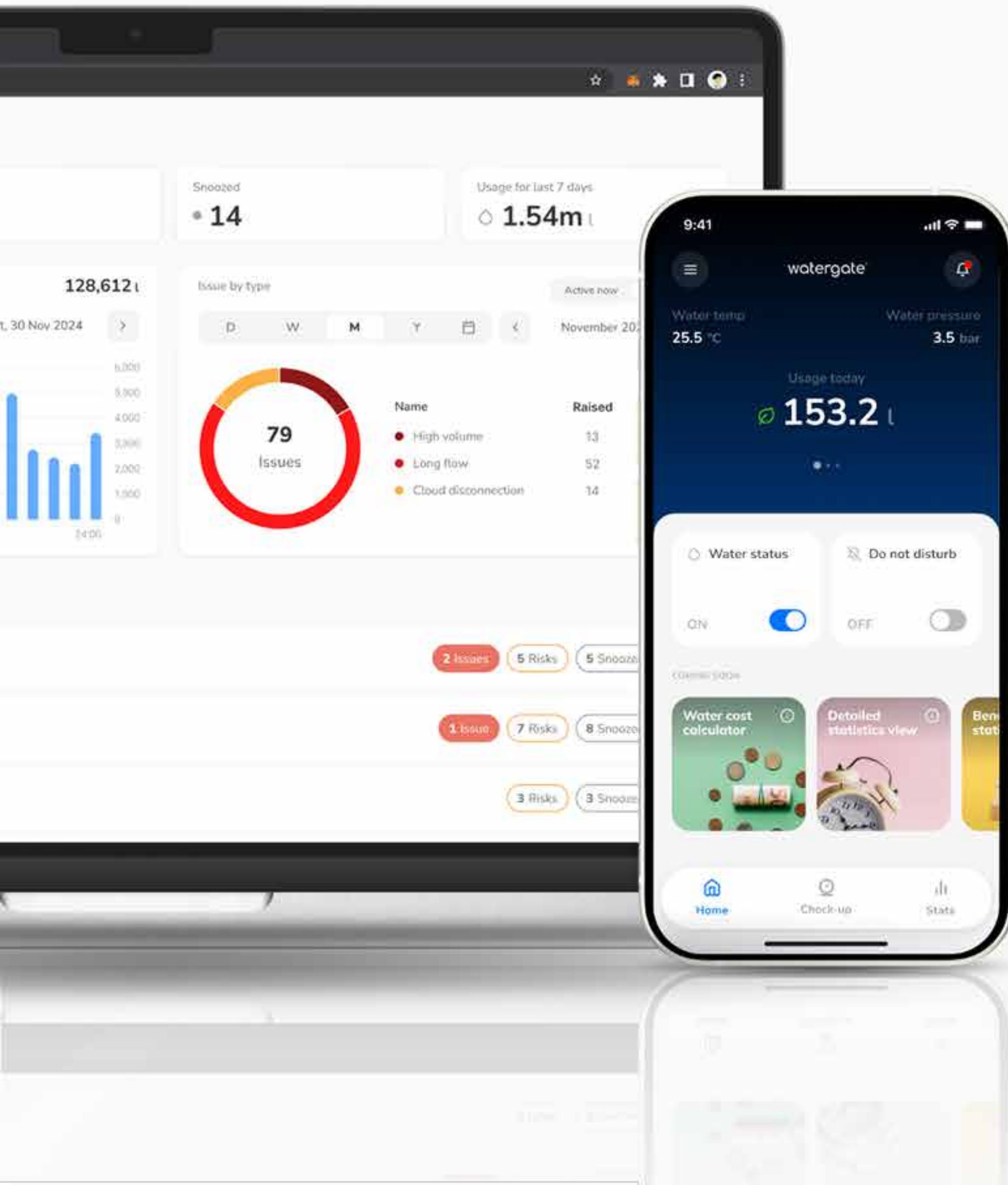


Carbon footprint reduction

Cutting water consumption by 2 million litres per month will avoid 26 tonnes of CO₂e annually⁵.

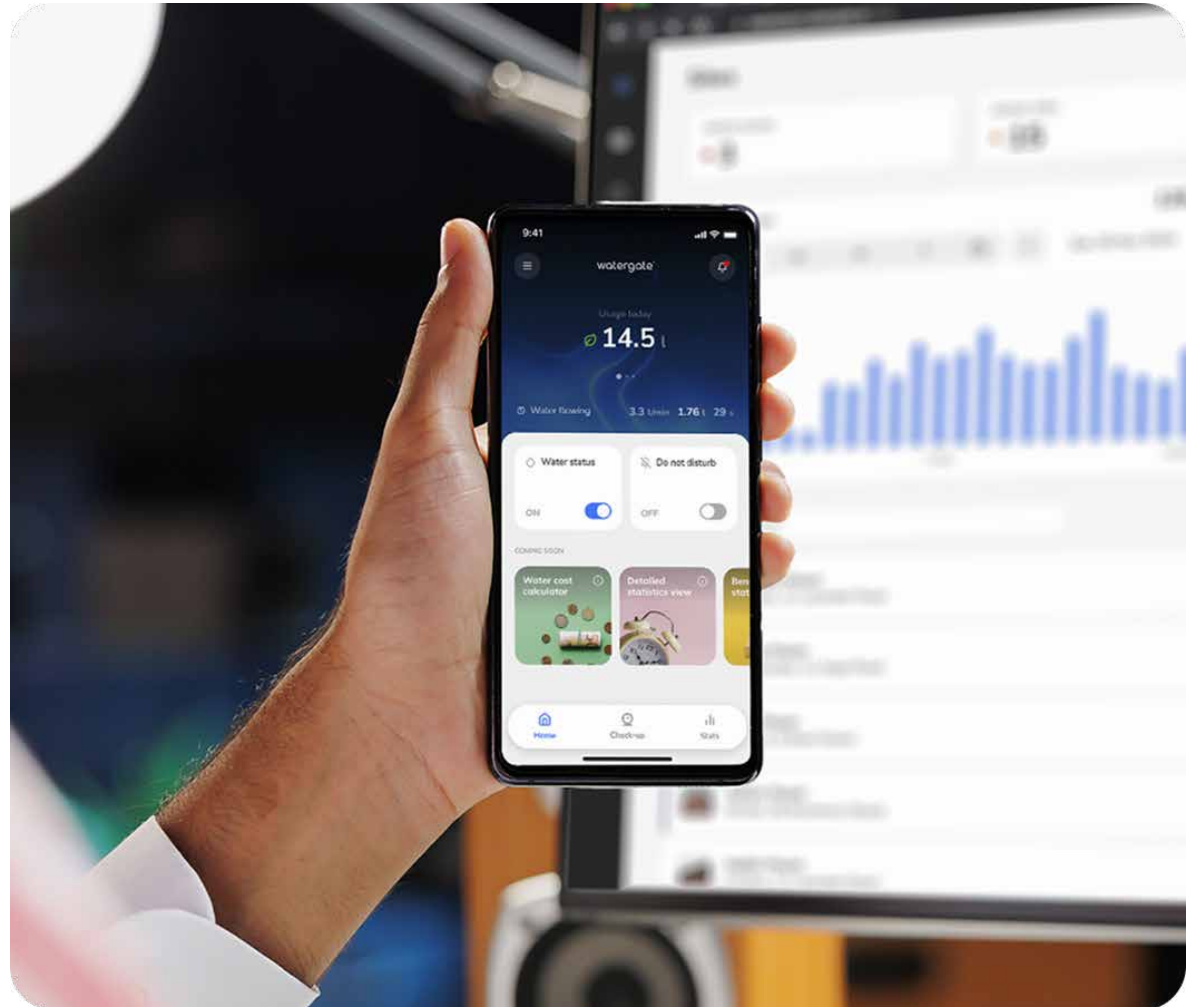
How Sonic, the app, and dashboard work together

At the heart of this transformation is **Sonic**, Watergate's **smart water valve**. Sonic continuously monitors water flow, temperature, and pressure in real time, alerting users to potential leaks or inefficiencies. If a significant issue is detected, Sonic's automatic shut-off feature can immediately halt water flow, preventing damage and costly repairs.



Complementing Sonic is Watergate's user-friendly mobile app and centralised dashboard. The **app** empowers on-site teams to monitor individual apartments, receive instant alerts, and address problems on the go. Greystar plans to give residents direct access to the app so they can benefit from being served water-saving nudges.

The **dashboard** provides a comprehensive overview of water usage and system performance across all properties, enabling predictive maintenance and data-driven decision-making. Together, these tools offer unparalleled visibility and control over water management.



How smart water management future-proofs Greystar's portfolio

Greystar's adoption of smart water management technology is more than an immediate cost-saving measure—it's a long-term investment in resilience, efficiency, and sustainability.

By prioritising smart water management, Greystar cements its position as a forward-thinking real estate leader. Watergate is now a key component of its smart building strategy, equipping it to navigate challenges like water scarcity and rising operational costs.

- **Enhanced property value**

Lower operational costs boost profitability, directly increasing asset valuation. With Watergate's technology, annual savings multiply an asset's ROI at the time of sale.

- **Asset protection**

Real-time monitoring and predictive maintenance reduce the risk of costly leaks and operational disruptions, safeguarding both buildings and bottom lines.

- **Optimised facility management**

As the industry shifts toward centralised facility management, Watergate enables Greystar to cut costs by reducing reliance on on-site teams while maintaining high operational efficiency.

- **Strengthened sustainability credentials**

Proven reductions in water use and CO₂e emissions enhance Greystar's sustainability performance, supporting higher BREEAM ratings and reinforcing its environmental leadership. Research shows that BREEAM-certified buildings can achieve over 20% higher sale prices and rents than non-certified properties.⁶

With successful implementations across its first three buildings, Greystar is now well positioned to unlock **multi-million-pound savings** across its wider portfolio.



We've been incredibly impressed with Watergate Sonic's performance and reliability, and it has already identified and prevented several leaks. It is revolutionising the way I manage and protect our assets and has given me peace of mind. The precision of the leak detection is exceptional, capable of identifying even the smallest leaks that would typically go unnoticed until significant damage occurs.

Its automatic shut-off valve sets it apart from other similar products on the market—the moment a leak is detected, the valve immediately shuts off the water supply, minimising the risk of damage. It also supports our wider ESG commitment to reducing on-site water usage and increasing water efficiency across our operations.

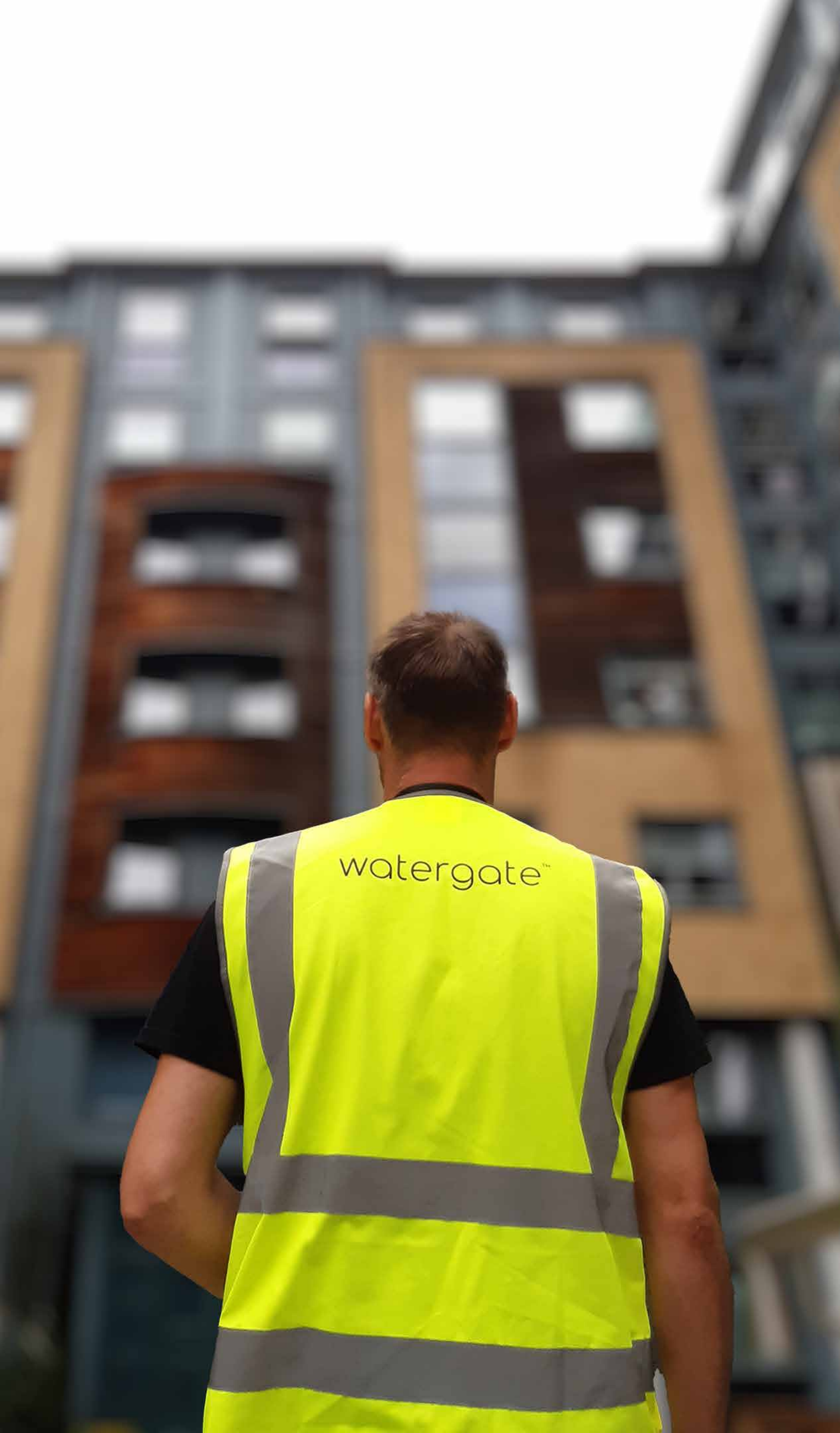
– **Mandisa Khabo**

Technical Director, International Development and Operations at Greystar



Notes

- 1** Expected **daily usage breakdown** for a 'water-educated' occupant: Toilet flushes (2 per day): ~14 litres (all cold) + One 5-minute shower (~10 l/min): 50 litres total, ~60% of which is cold = 30 litres + Brushing teeth (twice a day): ~5 litres total, ~60% cold = 3 litres + Other tap use (handwashing, room cleaning, etc. three times a day): ~5 litres total, ~60% cold = 3 litres. Adding those cold-water components up yields 50 litres per person per day.
- 2** The monthly **cold water consumption** was **2,998,142** litres/month across 578 apartments and 106 communal spaces. With an 81.04% occupancy rate over the measuring period, we would expect this to be **955,970** litres/month since the average cold water consumption of a single occupancy studio is 50L per day (578 apartments x 50 litres/day x 30 days x 0.8104 = 702,600 litres) and for communal spaces cold water consumption is 80L per day (106 communal spaces x 80L/day x 30 days = 253,370 litres). This equates to a total **2,042,170** litres/month saving potential, or a 68% reduction.
- 3** **Water saving:** We've used the Thames Water 2023/24 residential rate for water, including waste, at £3.19 per cubic metre, and increased this by 12.4% to £3.59, as per Thames Water 2024/25 [price increase](#). 2,042 cubic metre saving x £3.59 = £7,331.6 monthly saving or £87,977 annual water cost savings.
- 4** The **insurance savings** are based on the following data and assumptions: Average UK EoW (escape of water) claim, including average excess of £500, of £3,887 per room per year. Assuming a 1.23% likelihood of a leak per space (as per latest ABI data for commercial and industrial properties), Chapter Islington's 684 spaces are likely to have 8.4 leaks per year. This means total annual exposure of 8.4 x £3,887 = £32,702. Watergate Sonic gives 72% reduction in EoW claim severity, equating to **£23,546** per annum (72% of the £32,702) of mitigation savings.
- 5** Using the [UK Government \(Defra\) conversion factor](#) for **Green House Gas (GHG) emissions** from water. Water supply: 0.344 kg CO_{2e} per cubic metre. Water treatment: 0.708 kg CO_{2e} per cubic metre. Summing these gives a total of 1.052 kg CO_{2e} per cubic metre for both processes combined.
- 6** A study published by the Royal Institution of Chartered Surveyors (RICS) reported that **BREEAM-certified buildings** in London achieved a 21% premium on transaction prices and an 18% premium on rents compared to non-certified buildings. Source: [RICS research](#)



Take the next step!

If Greystar's experience inspires you, imagine what Watergate could achieve for your properties.

Book a free consultation

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