SUSTAINABLE SUSSEX
JUNE 2023

SUSTAINABLE WATER MANAGEMENT POLICY

UNIVERSITY OF SUSSEX

SUSTAINABLE WATER MANAGEMENT POLICY

1. OVERVIEW AND PURPOSE

1.1. Climate change and population growth are putting increasing pressure on the water sector in England. This is particularly true in the south and to the University, which sits within an area determined by the Environment Agency to be an area of serious water stress.[1]

1.2. In 2021, the University adopted a new **Sustainability Strategy** which, in acknowledgment of the importance of water as a natural resource, made a commitment to support the sustainable production and consumption of water on campus.

1.3. This Policy builds on that commitment, seeking to reduce water use by improving water management and setting out the guiding principles which must be followed when considering and managing water assets on campus.

1.4. The Policy will be reviewed every three years to ensure it reflects best practice and processes.

2. SCOPE

2.1. This Policy applies to all water management activities taking place both on campus and in University owned buildings.

2.2. This policy does not deal with matters of water safety. These are set out in the Estates **Water Safety Plan**, and are therefore not duplicated here.

3. RESPONSIBILITIES

3.1. DIRECTOR OF ESTATES, FACILITIES AND COMMERCIAL SERVICES

3.1.1. The Director of Estates, Facilities and Commercial Services will be held accountable for delivering the policy and has responsibility for ensuring:

- staff in their division understand when the Policy applies to them, and how they action the Policy
- their staff comply with the Policy
- budget is available to deliver the Policy.

3.2. SUSTAINABILITY MANAGER

3.2.1 The Sustainability Manager has responsibility for:

- creating, reviewing and amending the University's Water Management Policy
- publishing and promoting the Policy to the University, including:
  - information about water use in student welcome packs
  - integrating water saving into Sustainability Champions schemes
  - compliance with our Trade Effluent Agreements regarding what we dispose of via the drains.
- overseeing the delivery of any additional metering required to align with the Policy
- ensuring trade effluent consents are up to date
- reporting the amount of water we use at least annually as part of our Annual Sustainability Report.

3.3. HEAD OF HEALTH AND SAFETY

3.3.1 The Head of Health and Safety has responsibility for ensuring the relevant Health and Safety Policy and related documentation and guidance is up to date and communicated across the organisation.

[1] https://www.gov.uk/government/publications/water-stressed-areas-2021-classification

4. POLICY

4.1. PRIORITISE REDUCTIONS IN HOT WATER USE

4.1.1. We will prioritise and target hot water use in order to both reduce our water consumption and our energy consumption, delivering greater carbon and financial savings.

4.1.2. Although we wish to take action to reduce all water use, realistically we will need to prioritise where work is focused at first.[2]

4.2. MONITOR AND MEASURE WATER CONSUMPTION

4.2.1. We will improve the Automatic Meter Readings (AMR) metering across our estate, both on and off campus, to ensure we have a building level understanding of our water consumption, and can identify water leaks and wastage.

4.2.2. We will meter rainwater harvesting and grey water systems to ensure we understand how much water we are reusing.

4.2.3. We will monitor water consumption using a profile alerts platform, alerting us when water use changes from expected levels due to a leak, or change in user behaviour or equipment.

4.2.4. We will benchmark water use across the University to be able to prioritise interventions and corrective actions in buildings with higher water use level.

4.3. MINIMISE WATER CONSUMPTION

We will minimise the water we consume by:

4.3.1. Managing the legionella risk

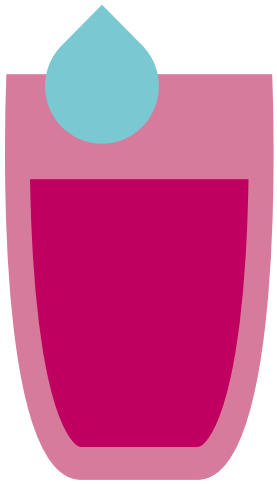
4.3.1.1. The University is committed to ensuring the management of legionella on campus to safeguard its staff, students and visitors to site. A separate Water Safety Plan is in place that details how the University manages legionella risk. In order to ensure no risk of legionella, all campus water systems are flushed regularly. Although a safe and approved management technique, it causes significant water losses every day.

4.3.1.2. We will seek to address this issue, and negate the need for daily water flushes. We will explore all possible solutions including the option of installing a poly-pipe network inside the existing pipe system.

4.3.1.3. The solution will be assessed on a whole life cost basis, and actioned if the management of legionella remains at acceptable, safe and compliant levels, and value for money can be achieved.

4.3.2. Delivering best practice maintenance

4.3.2.1. We will ensure that all water meters, fixtures and fittings are maintained in-line with manufacturers' recommendations, and comply with all statutory requirements relating to their installation, testing, maintenance and decommissioning.



[2] In 2021/22, water usage was directly associated with only 0.11% of the University's carbon emissions, which doesn't account for additional emissions associated with heating water, which will be far greater than those from the supply of water itself.

4.3.3. Proactive and rapid leak response

4.3.3.1. When an increase in water consumption is detected, we will respond promptly to investigate if further action should be taken.

4.3.3.2. All significant leaks (eg large bore high volume pipes, pressurised systems) will be isolated within 24 hours and repaired as quickly as possible.

4.3.3.3. The Facilities Team will respond to all reports of water wastage such as dripping taps within a maximum of 10 days.

4.3.3.4. We will ensure the integrity of the water distribution mains is being maintained by carrying out non-intrusive leak detection surveys at five yearly intervals, and repairing any leaks found.

4.3.4. Achieving the highest practicable water efficiency standards for our fixtures and fittings, and water consuming equipment

4.3.4.1. We will not install new baths in residences, unless there is a proven accessibility requirement to do so.

4.3.4.2. When replacing or specifying fixtures and fittings, we will work to the following minimum flow rates:

Minimum flow rates	
WC	3.75 litres effective flush volume
Hand wash basin taps	3.75 litres/min
Showers	4 litres/min
Urinal	0.75 litres/bowl/hour
Kitchen tap: kitchenette	5 litres/min
Kitchen taps: restaurant (pre-rinse nozzles only)	6.3 litres/min
Domestic sized dishwashers	11 litres/cycle
Domestic sized washing machines	35 litres/use
Commercial sized dishwashers	4 litres/rack
Commercial or industrial sized washing machines	5 litres/kg

4.3.4.3. However, we will seek to better these when possible, testing and when successful rolling out new technologies and solutions.

4.3.4.4. In any buildings where it is not possible to achieve these flow rates, we will select as efficient fixtures and fittings as we can achieve.

4.3.4.5. We will continue to work to achieve LEAF (Laboratory Efficiency Assessment Framework) standards to ensure our laboratories reduce their environmental impact, including water use.

4.3.5. Applying of building standards to minimise water usage

4.3.5.1. We already require a BREEAM rating of 'Excellent' as a minimum for new builds, but to ensure we deliver high environmental standards in all works we will create a standards guide which will include water practice.

4.3.5.2. The guide will reflect the principles set out in the Policy and will take a whole life approach, assessing the value for money of building and construction interventions against operational water savings over their lifetime.

4.3.6. Communicating water conservation messages

4.3.6.1. We will promote and engage staff and students so they understand the value of water, and take action to minimise use on and off campus.

4.4. MANAGE OUR WASTE WATER AND MAXIMISE REUSE

4.4.1. Surface water run off

4.4.1.1. Surface water run off is a known issue across campus, with measures in place to prevent water ingress into buildings during or immediately after heavy rain.

4.4.1.2. We will investigate and deliver improvements to resolve this situation, including Sustainable Urban Drainage System (SuDS) and the potential of using permeable surfaces, when delivering any new builds or significant refurbishment.

4.4.1.3. When considering SuDS, they will be designed to deliver an increase of biodiversity, habitat creation and local cooling.

4.4.2. Foul water discharge

4.4.2.1. We will ensure that the University foul sewerage network is maintained to high standard.

4.4.2.2. We will identify where surface water may be entering the foul water drainage system, and take action to prevent this.

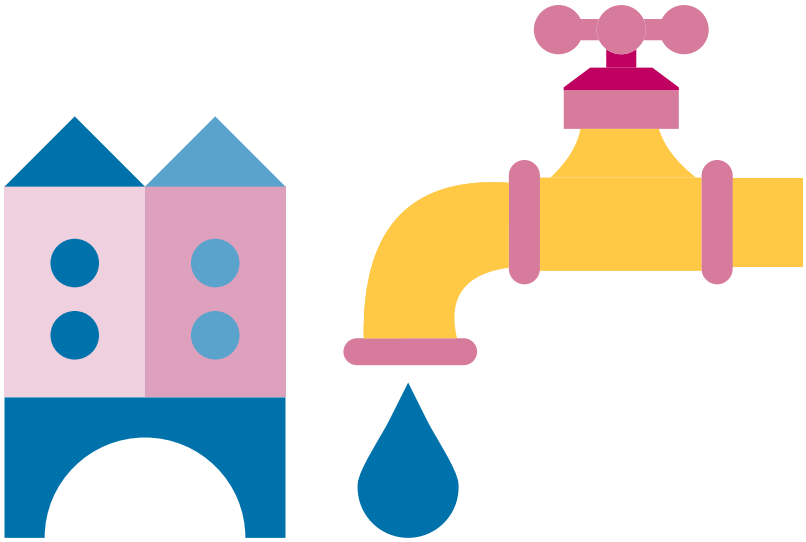
4.4.2.3. We will install AMR meters to actively monitor the foul water leaving the site to add to our understanding of our water systems.

4.4.2.4. The meters will be connected to the profile alerts platform, alerting us when water use changes from expected levels.

4.4.3. Maximise water reuse across the university

4.4.3.1. We will continue to assess the suitability and cost-effectiveness of water efficiency technologies such as grey water and rainwater harvesting systems with the aim of wider scale adoption across the estate.

4.4.3.2. When delivering new buildings or significant refurbishments we will aim for a minimum of 50% of WC and urinal flushing demand to be met using recycled non-potable water.



4.5. PREVENTING WATER SYSTEM POLLUTION

4.5.1. We will ensure water discharges do not negatively impact water quality (potable, freshwater or marine), in order to protect ecosystems, wildlife or human health and welfare. We will achieve this through the following:

4.5.2. Maintain trade effluent agreements

4.5.2.1. We will not allow any disposal of liquids via external surface drains or directly into water courses.

4.5.2.2. We will undertake yearly reviews of existing trade effluent agreements to ensure they are up to date with current processes being undertaken across campus.

4.5.2.3. We will ensure records for trade effluent consents are up to date, updating consents where changes in use/new buildings result in changes to where and what type of trade effluent is discharged by the University.

4.5.3. Ensure emergency spill procedures are fit for purpose and followed

4.5.3.1. We will ensure our emergency spill procedures are reviewed, tested and communicated regularly to maintain compliance.

5. LEGISLATION

5.1.1. A non-exhaustive list of the water related legislation that the University must comply with are set out below:

- **Water Industry Act 1991**
- **Environmental Permitting (England and Wales) Regulations SI 2016/1154**
- **Anti-Pollution Works Regulations SI 1999/1006**
- **Water Supply (Water Fittings) Regulations SI 1999/1148**
- **Water Resources Act 1991**

GLOSSARY

Automatic Meter Readings (AMR) metering	Automatic Meter Reading (AMR) is a technology used to automatically collect consumption, diagnostic and status data from gas, electricity or water metering devices. The AMR then transfers this data to a central database for billing, troubleshooting and analysis
BREEAM	BREEAM stands for Building Research Establishment Environmental Assessment Method. It is a widely adopted system for assessing and certifying the sustainable credentials of a building.
Greywater	Greywater is wastewater from non-toilet plumbing systems such as hand basins, washing machines, showers and baths.
Potable water	Potable water is water that has been treated and can be drunk or used in food preparation.
Rainwater harvesting	Rainwater harvesting is the collection and storage of rainwater that would otherwise flow down gutters into the drain. Rainwater is collected for the purpose of re-use. Re-use purpose can vary, from simple systems to collect water, to water gardens, to more complex systems where the water is used to flush toilets.
Sustainable drainage systems	Sustainable Drainage Systems (SuDS) are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers. SuDS work by slowing and holding back the water that runs off from a site, allowing natural processes to break down pollutants. They offer a natural approach to managing rainfall and run off by providing a method for allowing surface water drainage to be collected, stored and released in to the natural environment (ponds, watercourses, the ground) over a period of time helping to prevent the surface water system being overwhelmed and reducing risk of local flooding as a result.
Trade effluent	Trade effluent is any liquid waste (effluent), other than surface water and domestic sewage that is discharged from premises being used for a business, trade or industrial process.
Trade effluent agreement	An agreement between the University and the water supplier about what is acceptable for us to dispose of via the drains.

Review/Contacts/References	
Policy title:	Sustainable Water Management Policy
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Related internal policies, procedures, guidance:	**Sustainability Strategy** **Estates Water Safety Plan** **Biodiversity Policy** **Grounds Management Plan** **Legionella Safety Management Procedure**
Policy owner:	Estates, Facilities and Commercial Services
Lead contact/author:	Sustainability Manager