University of Strathclyde

Water Management Policy

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| Version | Date | Description | Author | Approval |
| 1.0 | 17/10/2024 | A policy for the management of surface, potable and waste water at the University | David Charles | Rufus Logan,  Robert Kilpatrick |

Water Management Policy

# Introduction

## Executive Summary

The sustainable use of natural capital, including freshwater is fundamentally important to all of us. The University is committed to tackling climate change and reducing resource use. This includes reducing its use of water for research and sanitation purposes. It also includes managing the impact the university has on Scotland’s drains and sewers through run-off, drainage and wastewater from its grounds and buildings. This policy is aligned to United Nation’s Sustainable Development Goal six: Clean Water and Sanitation.

## Context

### Legislative Context

The following legislation effects how the University uses and manages water:

* Water (Scotland) Act 1980
* Climate Change (Scotland) Act 2009
* Flood Risk Management (Scotland) Act 2009
* The Urban Waste Water Treatment (Scotland) Regulations 1994
* The Water Environment (Controlled Activities) (Scotland) Regulations 2011
* EU Drinking Water Directive[[1]](#footnote-2)
* Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017
* Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2017
* Sewerage (Scotland) Act 1968
* Water Environment (Controlled Activities) (Scotland) Regulations 2011 SSI 209

### Regulatory Context

Scottish Water are the wholesale water supplier for the whole of Scotland and they are regulated by the Water Industry Commission for Scotland (WICS)[[2]](#footnote-3).

For environmental matters relating to water including pollution prevention and control, the Scottish Environment Protection Agency (SEPA)[[3]](#footnote-4) are the regulator.

## Policy Aims

1. To ensure the University responds to the global climate emergency, by reducing the environmental impact of water use.
2. To reduce the risk of damage from water flooding and erosion.
3. To encourage responsible and proportionate use of water by all University staff and students.
4. To maximise the opportunity to reuse water.

## Scope

This policy will focus on water use and conservation across the Strathclyde Estate. Its aim is to establish clear procedures and recommended actions that will allow the University to positively manage our impacts in this key area, whilst inspiring collaboration and improving understanding through visible initiatives.

This policy will not focus on health and safety aspects of water use and storage, such as legionella, because this is covered in existing Safety, Health and Wellbeing policies.

## Roles and Responsibilities

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| Role | Responsibility |
| Building Services and maintenance engineers | Maintain the water, wastewater and drainage systems within University buildings. |
| Sustainable Strathclyde | Monitor and report water consumption.  Report any observed anomalies in the data that may suggest a leak. |
| Departmental staff | Report any known leaks, flooding or water wastage to the Estates Helpdesk[[4]](#footnote-5) |
| Students | Report any known leaks, flooding or water wastage to the Estates Helpdesk |
| Cleaners | Use water efficiently. Report any known leaks, flooding or water wastage to the Estates Helpdesk |
| Lab technicians and researchers | Sign up and follow the LEAF framework[[5]](#footnote-6). Replace any inefficient water-using lab equipment with sustainable alternatives. |

# Water Usage, Care and Monitoring

## Water usage

The University of Strathclyde uses water for several different purposes, including:

* Processes such as lab experiments and building HVAC systems.
* Handwashing
* Showering
* Toilet flushing
* Cleaning

The water used for all of these purposes is supplied through the Scottish Water mains water network and stored in water storage tanks in each building. No extracted or desalinated water is used in University properties.

### Water Reuse

Water is currently reused in the following ways at the University:

* Recirculating chiller plants
* Rainwater harvesting at the National Manufacturing Institute Scotland (NMIS)

The rainwater harvesting tank at NMIS has the outlet metered to enable monitoring of the quantity of rainwater used in toilets within the building. The quantity of water from recirculating plant is not currently monitored.

Estates Services will continue to identify opportunities to reuse water where feasible and present Business Cases to Senior Management.

## Care

### Waste water treatment

For most university sites waste water is treated via the municipal waste water treatment plants operated by Scottish Water[[6]](#footnote-7).

The only exception to this is the University’s Ross Priory site located on the shores of Loch Lomond. The site operates under a water use license (ref. CAR/L/1000712) and treats sewage from the site using a reedbed system before discharging the cleaned water into Loch Lomond.

The University has a duty of care to ensure that waste water treatment systems continue to operate effectively. It does this by regular water sampling.

The University will continue to fulfil it’s obligations under The Water Environment (Controlled Activities) (Scotland) Regulations 2011.

### Pollution Prevention

The University manages pollution prevention through the use of Pollution Prevention Notes and water use licenses:

* POLLUTION PREVENTION NOTE – CONSTRUCTION AND MAINTENANCE WORKS[[7]](#footnote-8)
* POLLUTION PREVENTION NOTE - SPILLAGE RESPONSE[[8]](#footnote-9)
* Water Use License Reference No. CAR/L/1000712[[9]](#footnote-10)

### Building Standards

For any new build or major refurbishment project a building warrant is sought from the Local Authority’s Building Control Department.

The University has it’s own Sustainable Design Quality Standard[[10]](#footnote-11), of which section 6.10 is dedicated to minimising water consumption.

### Green spaces and landscaping

University green spaces and plants are managed closely by our expert Grounds and Gardens team[[11]](#footnote-12). Planting strategies include grasses and wildflower meadows that are resistant to low levels of rainfall.

The University will continue to manage it’s planting and grounds maintenance strategy to minimise the impact on the environment and maximise biodiversity gain.

## Monitoring

Water use throughout the University is monitored and managed by 31 water meters located across its Estate. Most of these meters have automatic meter readers installed, which read the meter every 15 minutes.

The University also has several unmetered supplies where the water use is unknown and billed on a pound per rateable value rate.

The University will continue to monitor it’s water use closely and install meters on unmetered supplies and large consumers where financially feasible to do so.

# Water in the Community

## Strategic Collaborations and Partnerships

The University collaborates with a variety of global, national, regional and local partners on water and water security. The University does this through the following:

* Sustainable Glasgow (lead by Glasgow City Council)[[12]](#footnote-13)
* Centre for Water, Environment, Sustainability & Public Health (University Centre)[[13]](#footnote-14)
* Sustainable Scotland Network (Network of Public Sector Sustainability Leaders)[[14]](#footnote-15)

The University is also involved in several academic collaborations aligned with the United Nations Water Progamme[[15]](#footnote-16). The University will continue to build on existing partnerships and form new partnerships to help solve problems of water security at all scales.

## Promotion and Campaigns

The University will promote conscious water usage on and off campus in the following ways:

* University Switch Off Campaigns[[16]](#footnote-17)
* Students Organising Sustainability UK Campaigns[[17]](#footnote-18)
* Estates Helpdesk[[18]](#footnote-19)

1. <https://environment.ec.europa.eu/topics/water/drinking-water_en>, (accessed 17/10/2024) [↑](#footnote-ref-2)
2. <https://wics.scot/>, (accessed 17/10/2024) [↑](#footnote-ref-3)
3. <https://www.sepa.org.uk/>, (accessed 17/10/2024) [↑](#footnote-ref-4)
4. <https://www.strath.ac.uk/professionalservices/estates/estateshelpdesk/>, (accessed 17/10/2024) [↑](#footnote-ref-5)
5. <https://www.strath.ac.uk/whystrathclyde/sustainablestrathclyde/whatwedo/sustainablelabs/>, (accessed 17/10/2024) [↑](#footnote-ref-6)
6. https://www.scottishwater.co.uk/Help-and-Resources/Education/All-About-Water/Waste-Water-Treatment [↑](#footnote-ref-7)
7. <https://www.strath.ac.uk/media/ps/estatesmanagement/sustainability/sustdocuments/Pollution_Prevention_Note_-_Construction_and_Maintenance_Works.pdf>, (accessed 17/10/2024) [↑](#footnote-ref-8)
8. <https://www.strath.ac.uk/media/ps/estatesmanagement/sustainability/sustdocuments/Pollution_Prevention_Note_-_Spillage.pdf>, (accessed 17/10/2024) [↑](#footnote-ref-9)
9. <https://www.strath.ac.uk/media/ps/estatesmanagement/sustainability/sustdocuments/CAR_Licence_WPCW03311.pdf>, (accessed 17/10/2024) [↑](#footnote-ref-10)
10. <https://www.strath.ac.uk/whystrathclyde/sustainablestrathclyde/policiesreports/>, (accessed 17/10/2024) [↑](#footnote-ref-11)
11. <https://www.strath.ac.uk/professionalservices/estates/groundsgardensteam/>, (accessed 17/10/2024) [↑](#footnote-ref-12)
12. <https://sustainableglasgow.org.uk/>, (accessed 17/10/2024) [↑](#footnote-ref-13)
13. <https://www.strath.ac.uk/research/subjects/civilenvironmentalengineering/environment/>, (accessed 17/10/2024) [↑](#footnote-ref-14)
14. <https://sustainablescotlandnetwork.org/>, (accessed 17/10/2024) [↑](#footnote-ref-15)
15. https://www.strath.ac.uk/research/subjects/civilenvironmentalengineering/environment/water/ [↑](#footnote-ref-16)
16. <https://www.strath.ac.uk/whystrathclyde/sustainablestrathclyde/climatetrainingengagement/strathclydeswitchoff/>, (accessed 17/10/2024) [↑](#footnote-ref-17)
17. <https://www.sos-uk.org/projects>, (accessed 17/10/2024) [↑](#footnote-ref-18)
18. <https://www.strath.ac.uk/professionalservices/estates/estateshelpdesk/prioritiesservicelevels/>, (accessed 17/10/2024) [↑](#footnote-ref-19)