

Oxford Brookes

Water Action Plan

ANNUAL REPORT 2018/19

Background

Our Water Strategy and Action Plan have been developed to meet the objectives of the Oxford Brookes Social Responsibility Framework, Environmental Policy and integrate into the University wide Estate Strategy. Improving the water efficiency of our organisation will save us money, reduce our impact on the environment and enhance our reputation. This water action plan will help us understand our water usage, enabling us to set SMART targets and to take measures to conserve water where practicable.

National Framework

Future Water (2008), the Government's water strategy for England, sets out the required steps that we will need to take to ensure that good clean water is available for people, businesses and nature. It looks ahead to 2030 and describes the water supply system we want to see then and how to get there. It provides an holistic overview of the water cycle, covering rainfall and drainage through to discharge and treatment. In short, it is the Government's vision for the sustainable delivery of secure water supplies and an improved and protected water environment. The European Water Framework Directive came into force in December 2000 and became part of UK law in 2003. It looks at the ecological health of surface waters and provides the opportunity to plan and deliver a better water environment, focusing on ecology. A recent Government publication, The State of the Environment: Water Resources (2018), concluded that if we do not increase water supply, reduce demand and cut down on wastage, many areas will face significant water deficits by 2050, particularly in the south east.

The draft Environment Bill was published in December 2018 and sets out how the Government will maintain environmental standards and build on the 25 year strategic environment plan, this is an overview only i.e. the 'principles and governance' outline and is not legislative as yet. The Environment Bill will be introduced in the second Parliamentary Session, but no firm dates have been given at this stage. The EU Withdrawal Act (2018) has been set up as a functioning statute to ensure current EU legislation that we are working under remains after Brexit

The Environmental Bill summer policy statement (July 2019) has been published after a period of several consultations. The Environment Secretary has been clear that water companies need to do more to help improve the environment and better prepare for future demand for water. There was strong support in response to a consultation on proposals to improve long-term planning of water resources and drainage. The Bill will introduce powers to direct water companies to work together to address these issues, such as transferring supplies between catchments during drought conditions, and instructing them to have robust plans in place to maintain supplies.

Water Strategy

VISION

A culture of efficient water use and management across our estate, in line with our Social Responsibility Framework, Environmental and Sustainability goals

KEY DRIVERS

1. Maintain our reputation as a sustainable and socially responsible organisation
2. Maintain legislative, regulatory and stakeholder compliance
3. Conserve our limited water resources through efficient use

OBJECTIVES

- Ensure compliance with legislation, regulation and stakeholder requirements
- Quantify, monitor and report water use
- Analyse, assess and benchmark water use
- Develop SMART targets and KPI's to measure progress
- Design in water efficiency measures
- Avoid surface water contamination and & comply with all trade effluent consents
- Promote water conservation best practice

Aims of the Water Action Plan

To deliver the requirements of the University Water Strategy. The Water Action Plan details actions to be taken by faculties and directorates enabling us to meet our objectives and high level targets for effective water management. Lower-level targets/actions have been set as detailed below in ANNEX 1.

Benchmarking water use

Water usage at Oxford Brookes University was assessed against the UK university sector as a whole in order to benchmark our water efficiency performance within the higher education sector. Since building occupancy rates are a major driver of water usage, FTE (students and staff) was used to normalise water use for non-residential buildings and water use per bed for residential buildings. HESA data is only reported on annually in the spring, therefore benchmarking data will only be comparable with the previous academic year.

Non Residential Target: Achieve ranking of top 20% of sector for non residential water use per FTE

As shown in the table below, OBU ranks within the top 38% of all UK universities when it comes to water efficiency per FTE (students and staff), meaning we are well outside our target of being in the top 20%.

Figures for 2018/19 show an increase in total non-residential water use of 14%, compared with 2017/18 figures.

Recommendation: these targets are revisited addressing; the validity of benchmarking a year in arrears; how other HE sector institutions & the private sector report; how OBU accounts for changing building uses / construction works.

HESA DATA YEAR 2017/18			
Water (m ³)	median	OBU	Ranking (top X%)
Non-Res/FTE	6.1	4.7	38%
Res/bed	31.2	37	69%

OBU water use vs. UK university sector (2017-18 HESA)

Residential Target: Achieve ranking of 50% or greater for residential water use (m3/per bed)

For residential water use, we rank 69% out of all universities when water use is normalised per bed. We are well outside our target of 50%. If you compare Clive Booth hall to other residences it is using over twice the water per student room compared to the other three halls. This indicates that there is significant potential for improving water efficiency for our residential halls. Several repairs have already been made, but due to the age of the system leaks appear within a short period of time. An ECSR has been raised to fix the leaks from the post-graduate centre: this will then be assessed and a reviewed for the remainder of the site.

Residential Hall	m ³ / bed space		% of res use (m ³)	
	2017/18	2018/19	2017/18	2018/19
Warneford	30	29	5	5
Crescent	33	35	7	8
Paul Kent	28	23	5	4
Clive Booth	69	66	81	82

OBU Water use per residential hall (2018/19)

High Level Targets 2019/20

1. Quantify, analyse and report baseline water use.
2. Maintain ranking in top 20% of sector for non-residential water use per FTE.
3. Achieve ranking in top 50% for residential water use/m3/per bed.
4. Maintain Emergency Response Plan.

ANNEX 1 : Water Action Plan

Objective	Owner	2018/19 Actions / Targets	Reporting on 2018/19 targets / actions	Proposed Actions / Target 2019/20	Timeframe
Quantify & monitor water use	EST	Track Baseline water use	Achieved: Baseline water use	Same 2018/19	On-going
		100% Meters logged, maintained and tracked	Achieved: 100% Meters logged (where practicable), 100% alarmed.	Same 2018/19	On-going
		100% new builds & refurb to have a meter/logger.	Achieved: As required by the Sustainable Design checklist	Same 2018/19	On-going
		Evaluate data and report on opportunities for improvement.	Achieved: Clive Booth Leak reported – ECSR raised.	Same 2018/19	On-going
Analyse, assess and benchmark water use	EST	Continue annual benchmarking against UK University Sector	Achieved: See in main text above.	Same 2018/19	On-going
		Evaluate data and report annually	Achieved: Monthly internal review, Quarterly reporting SLT, Bi-annual report to VCG	Same 2018/19	On-going

Objective	Owner	2018/19 Actions / Targets	Reporting on 2018/19 targets / actions	Proposed Actions / Target 2019/20	Timeframe
Develop SMART targets & KPI's	EST	<ul style="list-style-type: none"> - Maintain ranking with top 20% of sector for non residential water use per FTE: - Achieve ranking of 50% or greater for residential water use per m²: 	<p>Not Achieved:</p> <ul style="list-style-type: none"> - 38% ranking (based on 2017/18 data) for non-residential. - 69% ranking (based on 2017/18 data) for residential. 	Same as 2018/19	On-going
Design in water efficiency measures	Mech Main Team	New buildings: Work with Projects team to ensure incorporation of water efficient technology. using the BREEAM Wat 01 calculator. A minimum of a 50% reduction in water use shall be achieved compared to the BREEAM baseline. Alternatively fixtures and fixtures can be specified to performance level 4 in Table - 34: Water efficient consumption levels by component type (BREEAM Technical Guide 2014 page 200-201)	Achieved: As stated in Sustainable Design Checklist for New and Refurbished Buildings, Section 3a	Same 2018/19	Ongoing
	EST	Research business cases from other universities and businesses in the UK to determine typical payback on investments.	Not Achieved : No resources	Same 2018/19	Mar 2020
Design in Sustainable Urban Drainage Systems	EST	SUDS considered as part of the design process	Achieved. SUDs is now included as part of the planning process and will be delivered on all new projects.	REMOVE TARGET	Ongoing
Prevent surface water contamination	EST	Emergency Response Plan completed	Achieved: Spill response procedures in place. Gary Mattingly updating the BCP's Drainage plans require progressing	Maintain emergency response	Ongoing

Objective	Owner	2018/19 Actions / Targets	Reporting on 2018/19 targets / actions	Proposed Actions / Target 2019/20	Timeframe
				procedures & training	
Promote water conservation	EST	Develop campaigns and messaging to educate staff and students in water conservation behaviour	Not achieved: No resources	Same 2018/19	Ongoing