



# Environment & Sustainability Report 2022/2023



# Contents of the Report

---

1.0

## Introduction

---

4.0

### Progress to Date:

4.1 Energy

4.2 Water

4.3 Carbon footprint

4.3.1. Scope 1 & 2

4.3.2. Scope 3

4.4 Sustainable Travel

4.4.1. Single occupancy vehicle

4.4.2. Active Travel

4.5 Waste

4.5.1. Recycling rates

4.6 Ecology and  
Biodiversity

4.7 Engagement

---

2.0

## Executive Summary

---

5.0

## Issues to Address and Future Goals

---

7.0

## Acknowledgments

---

3.0

## Key Achievements in 2022-2023

---

6.0

## Conclusion





# 1.0 Introduction

Over the past year, the University of Northampton has worked to implement a variety of initiatives aimed to conserve energy, reduce waste, preserve biodiversity and educate our community on the importance of sustainable practices.

This Environment and Sustainability Report 2022/2023 provides a comprehensive overview of our achievements, challenges and the strategic projects we have undertaken to integrate sustainability into every facet of university life. This report highlights performance against associated targets set for the academic year (A/Y) 2022/23. Due to the availability of data sets, this report accounts for progress from August 2022 to the end of June 2023. This report compliments our Environmental Management System (EMS) manual, which gives further details of targets and achievements across a 12-month certification period.

## 2.0 Executive Summary

The University remains committed to becoming net zero carbon this decade and good progress has been made toward our common objectives to be a sustainable institution, with positive impacts on our environment and society.

In the last year, UON successfully reduced CO2 emissions by 38%, electricity consumption by 7% and waste produced by 18% against the UON baseline figures from 2018/19. Importantly the site-wide carbon footprint per full-time student (FTE) has also continued to decrease.

UON continues to rake highly in the Times Higher Education Impact Ranking retaining the 200th position, out of 1,500 institutions from 112 countries. The University is also ranked 25th for its sustainable use of land, and 29th in reducing inequality.

UON achieved Gold Status in the Hedgehog Friendly Campus Programme and developed the UON Nature Hub surveying tool which measures flora and fauna abundance and distribution across our estates. The Sustainability Champion's project was launched where students and staff volunteers come together to identify and implement projects that raise environmental awareness across UON.

UON was one of the leading universities with our Halls HEROES engagement campaign seeing us placed in the top four in overall participation out of over 100 universities.

Overall, UON has had a successful year with much to build upon to deliver our environmental ambitions. We look forward to 2023/24 and further embedding environment and sustainability into UON culture.



# 3.0 Key Achievements in 2022-2023



## ENERGY & CARBON

We successfully reduced carbon emissions (CO<sub>2</sub>e) by 38%, against 2018/2019 baseline data.

Site-wide electricity consumption has decreased by 7% compared to the last reporting period.

The carbon footprint per full-time (FTE) student has continued to decrease.



## WASTE

We successfully reduced waste by 18%, against 2018/2019 baseline data.

We have implemented new approaches to include key metrics on waste streams to better monitor and measure environmental performance.



## BIODIVERSITY

The Management Plan for Biodiversity; baseline report is complete and ready for publishing in the new year.

We have developed the UON Nature Hub surveying tool, a citizen science initiative to monitor and measure flora and fauna abundance and distribution across the UON estates.

Achieved Gold Status in Hedgehog Friendly Campus programme.



## ENGAGEMENT

Sustainability Local Innovation Partnership Agenda Hub (SLIPAH) was launched in July 2023.

The Sustainability Champions project was launched. Students and staff volunteers team up and dedicate time to identify and implement projects that raise environmental awareness.

Our Halls HEROES engagement campaign was hugely successful, seeing the UON placed within the top four in overall participation, out of over 100 Universities.

## 4.0 Progress to Date

### 4.1 Energy

The UON consumed 8,402MWh of electricity, a decrease of 7% compared to the previous academic year, at the time of writing (July data not available until the end of August 2023).

Gas use increased by 16% for the August – June period compared to 2021/22. 7,185MWh of gas has been consumed. The main cause for this increase is due to a technical issue with the Waterside meter, which has meant that our true gas consumption was not being recorded previously. Since April 2023, the team now has access to true consumption and appropriate targets to reduce this will be set.

Biomass use has drastically decreased by 68% in 2022/23 due to a fault with the boiler which resulted in it being out of operation for four months of the year. This is also a secondary contributing factor to the increase in gas consumption seen in this reporting period.

Waterside consumes the largest portion of the energy of the UON estate (49%), with Scholars Green Halls consuming 23% of total energy use. This identifies the need to improve energy use and efficiency at Scholars Green Hall.

Of the total energy consumed, 59% was from low carbon supply (*Figure 1*). This includes onsite generation from our biomass boiler, solar PV at St Johns Halls and REGO[1] backed electricity across the whole estate.

[1] [REGO Certificates](#)

### Energy Source (Total estate)

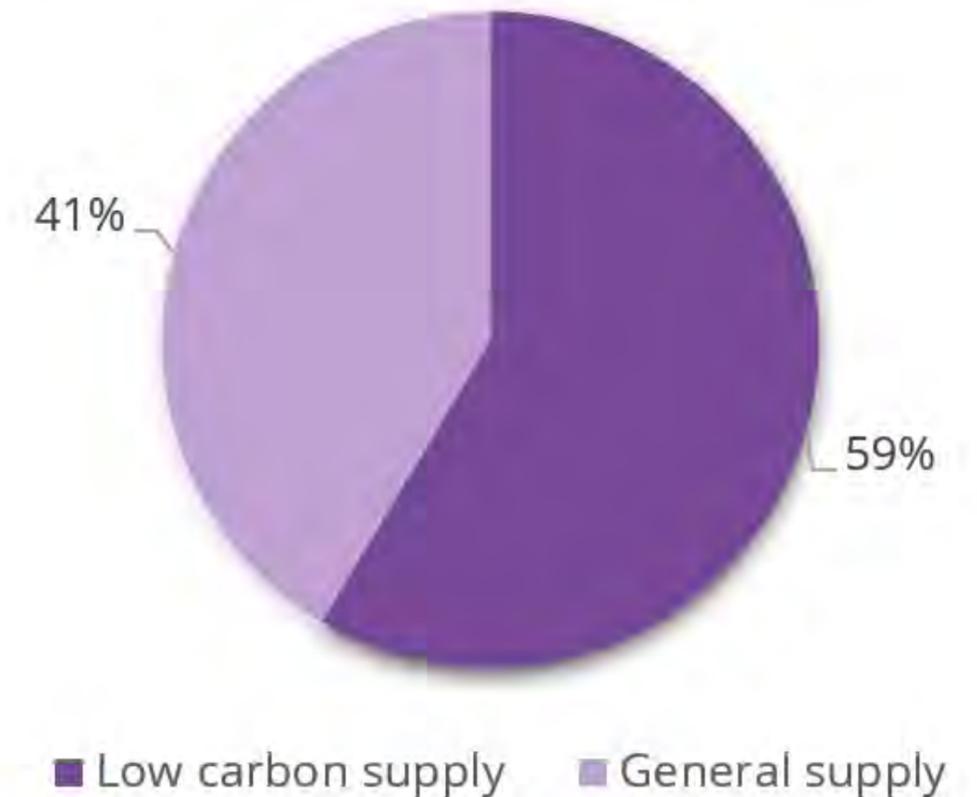


Figure 1. Proportion of Energy Source, Low Carbon vs General Carbon)



# 4.2 Water

Water consumption has been actively monitored in 2022/23 and is the first year that UON has a complete dataset. Due to issues with the water wholesaler, not all sites were receiving correct meter reads and billing which affected the usage data. An automatic meter reader was installed in May 2022 at Waterside to ensure we could accurately record and monitor consumption.

Total water supply August – June 2022/23 is 91,882m3, attributing to 15 (t) CO2e scope 3 emissions and 19 (t) for water treatment, a combined total of 34 (t).

Scholars Green is a high consumer (36%), using not much less than Waterside (43%). This indicates there may be excess water use at Scholars Green Halls when compared to the size difference with Waterside and that it is multi-functional with residences onsite (Figure 2).

Water supply breakdown per site

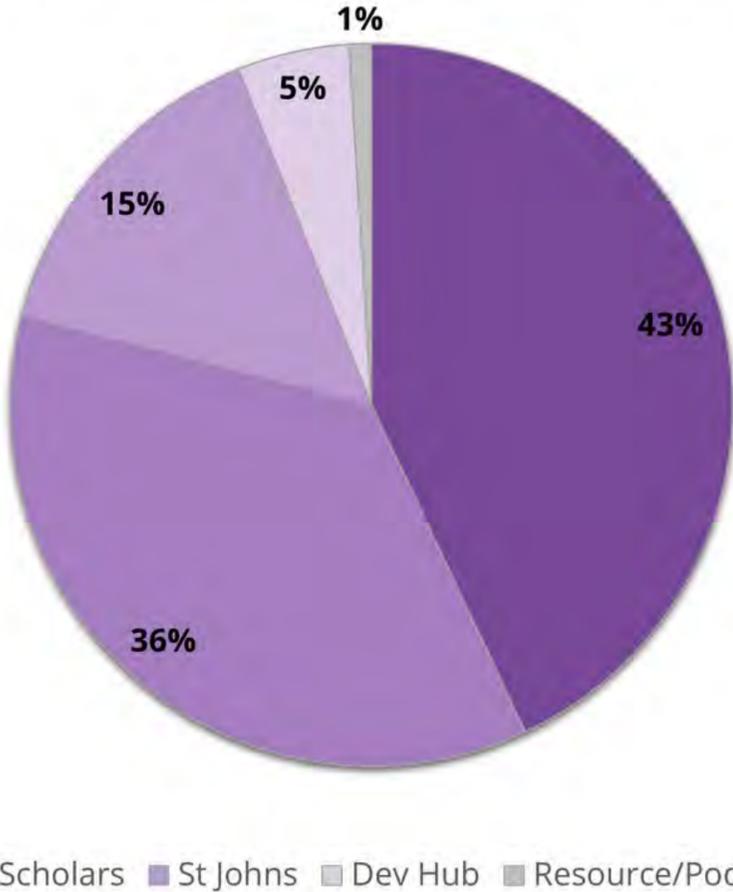


Figure 2. Proportion of water usage per site)



# 4.3 Carbon Footprint

## 4.3.1. Scope 1 & 2

The UON normalises its carbon footprint against two metrics; the Gross Internal Area (GIAm2) of the estate and the number of Full-time students (FTE) students.

This allows us to monitor emissions against changes in the estate and student intake to ensure carbon emissions are decreasing relative to the size of the University and its student population (*Figure 3.*).

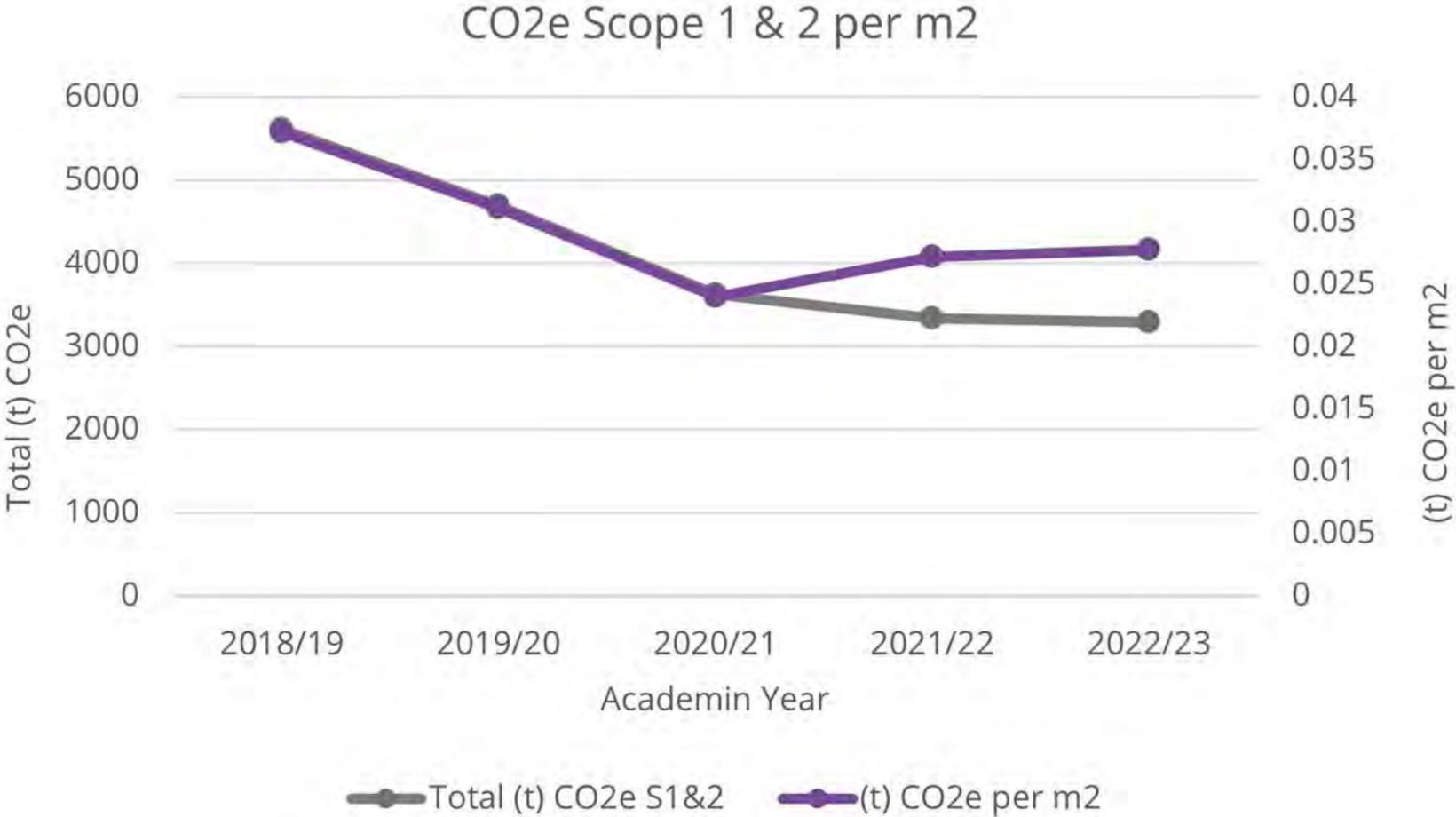


Figure 3: Carbon footprint against GIA m2.



## Scope 1 & 2

The UON carbon footprint per FTE student has continued to decrease. In 2022/2023, the number of FTE students increased by 6%, and the (t) CO<sub>2</sub>e decreased by 7% compared to the previous academic year (*Figure 4*).

Whilst our carbon footprint has decreased in 2022/2023, the (t) CO<sub>2</sub>e per GIAm<sup>2</sup> has increased by 2%.

The UON carbon footprint per m<sup>2</sup> has been rising since 2021/2022 which is negatively correlated with the size of the estate as this has decreased since 2021/2022.

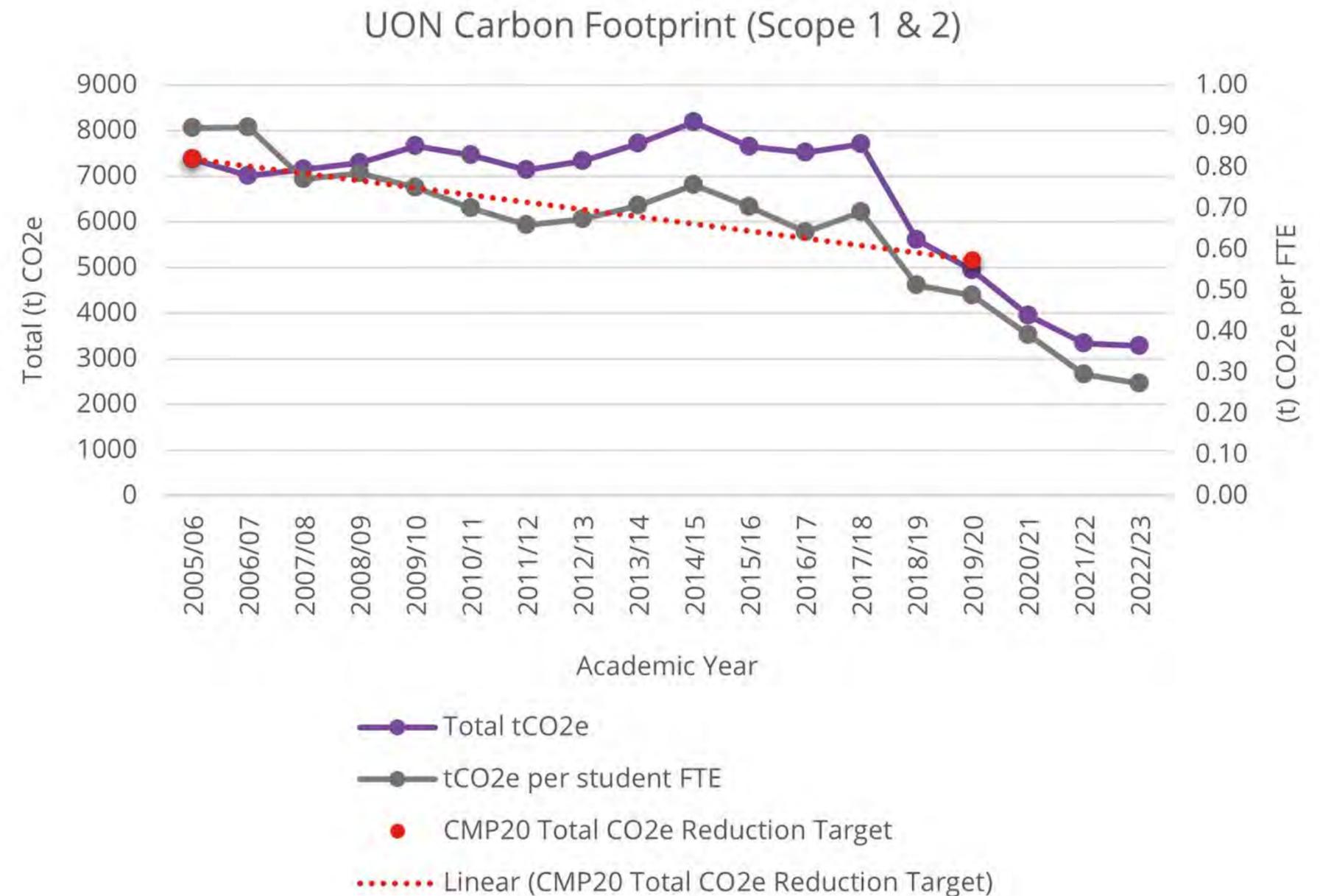


Figure 4. Carbon footprint against student FTE.

## 4.3.2. Scope 3

Scope 3 emissions are the indirect emissions generated within an organisation. For example, supply chains and production, commuting and business travel and waste.

The UON set a target in 2021/22 to increase and improve on scope 3 reporting across:

- Staff and student commuting (to include international student travel)
- Business travel
- Fieldwork travel
- Water supply and treatment

A project is underway with a third party company to calculate our scope 3 emissions. These findings will be reported separately and presented in the 2023/24 end-of-year report.



## 4.4. Sustainable Travel

### 4.4.1. Single occupancy vehicle (SOV)

The Travel Plan 2019 – 2022 ended in August 2022 and the target of reducing our single occupancy vehicle (SOV) trips by 20% was not achieved.

There was a significant drop in SOV travel in 2020, this was due to the pandemic and people working from home. Once the restrictions eased, SOV travel increased to 79%. These results are reflective of the impact the COVID-19 Pandemic had on travel, staff and students were likely hesitant to take public transport or car share.

### 4.4.2. Active Travel

Active travel (cycling and walking) increased year-on-year. The more sustainable travel increases should have a decreasing effect on the car journeys.

A new Travel Plan and Parking Management Strategy has been created for 2023 – 2028, which focuses on a target of increasing sustainable travel by 1% each year. This target is set for both staff and students and will be the focus of our initiatives over the next 5-years.

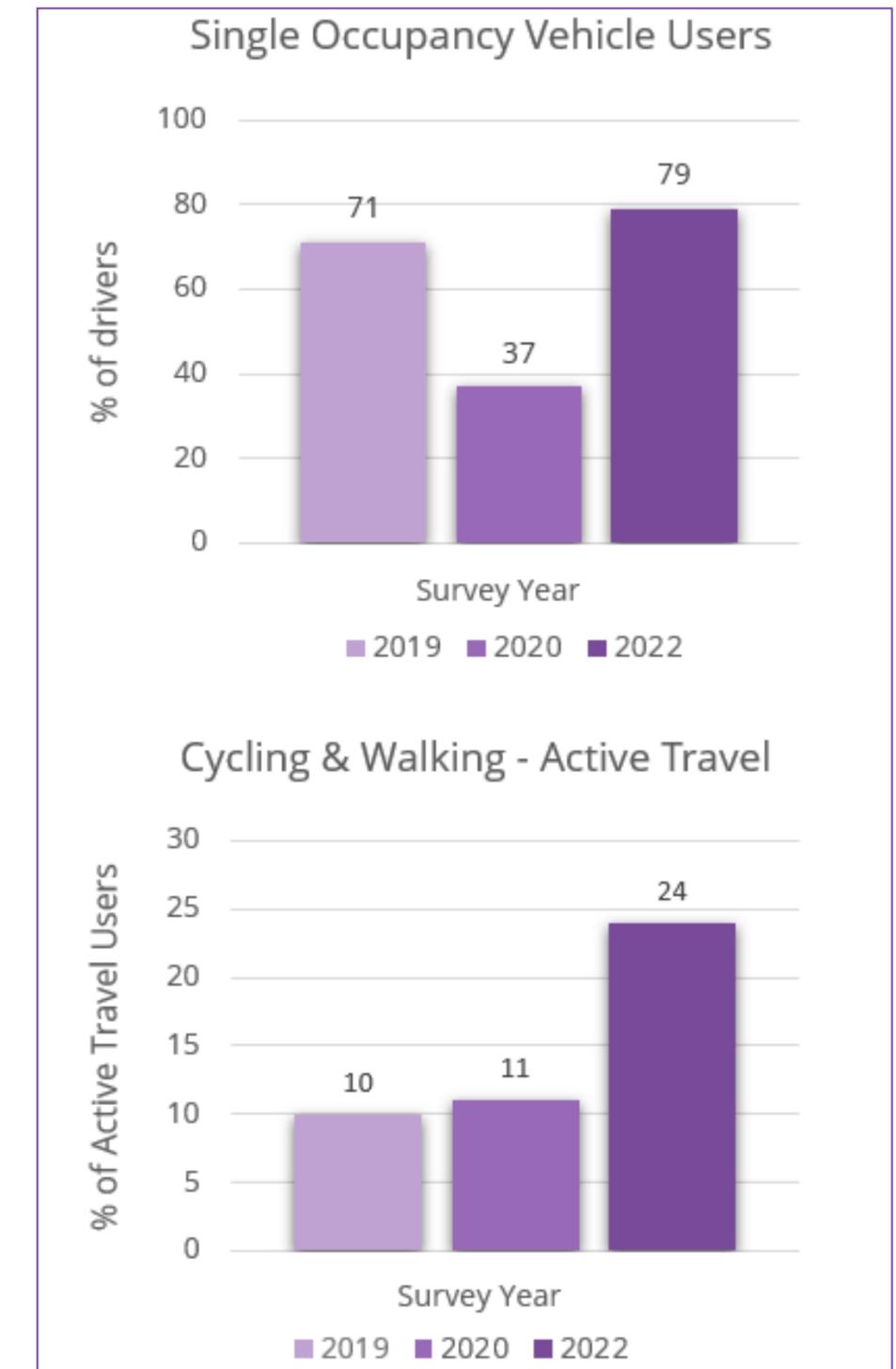


Figure 5. Sustainable travel, SOV and Active Travel.

## 4.5. Waste

The current academic year (2022/23) has seen an overall decrease in waste by 10% (-69.441t) (Figure 6) when compared to the previous academic year (2021/22).

The total waste produced between August 2022 to June 2023 was 599.42 tonnes (t) of which, 376.94 (63%) was recycled, 213.87 tonnes of waste was sent for energy recovery (EfW) and 8.6 tonnes were sent to landfill (Bio-ash).



Figure 6. Total waste across all UON estates by month; Suez data from current academic year compared to previous years data. Percentage change by month and overall annual % change of -10%.



### 4.5.1. Recycling rates

Recycling rates have reduced by 7%, dropping to 63% compared to the previous year's 70% and non-recyclable waste has increased by 7% increasing to 37% compared to the previous year's 30% (Figure 7).

The most challenging area for waste management is residential buildings, where general waste outweighs recycling by 20% (Recycling 40%; General waste 60%). Opposingly, all non-residential buildings have a greater recycling to general waste ratio (Recycling 71%; General waste 29%).

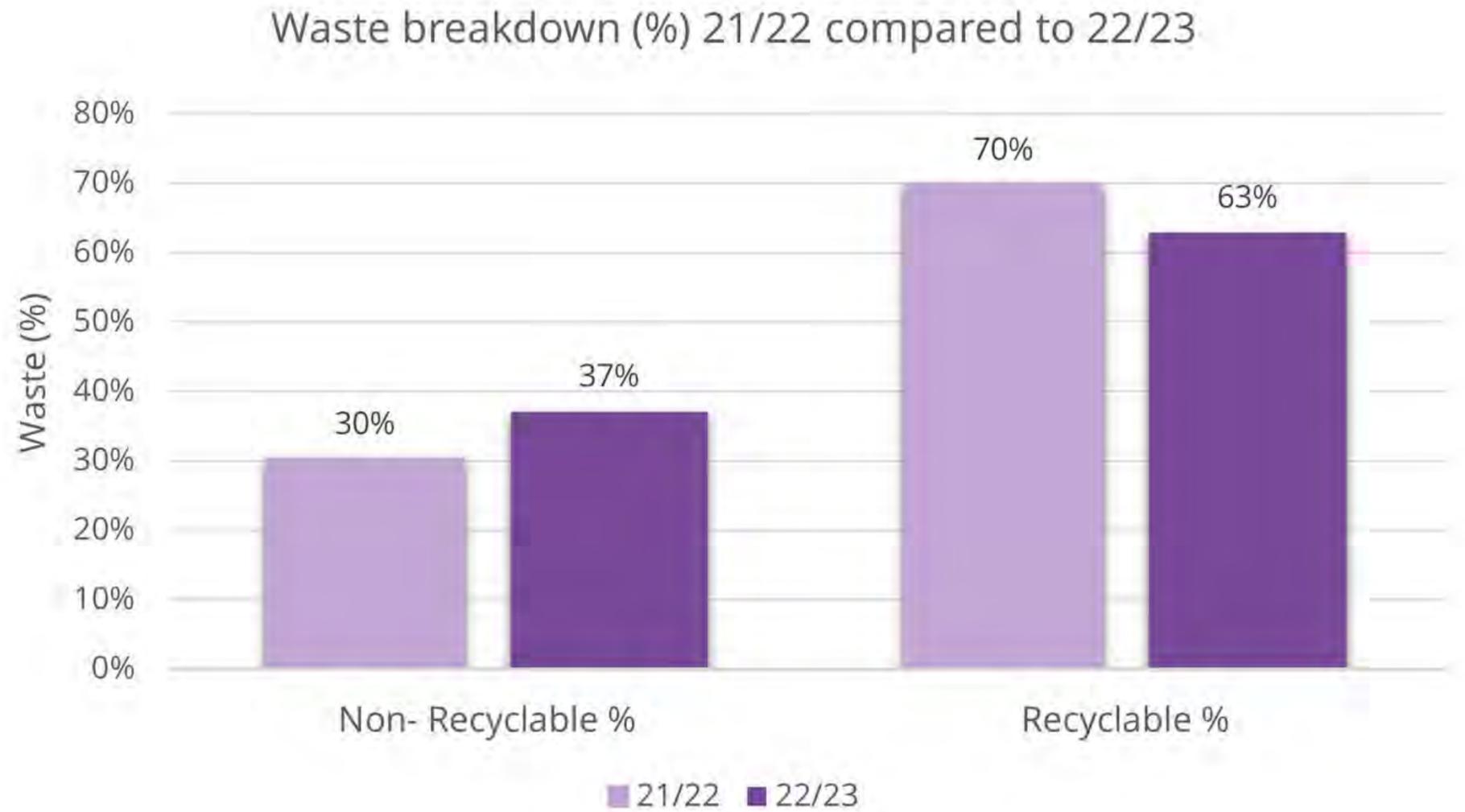


Figure 7. Breakdown of waste by recycling and non-recycling as a percentage (%) 2021/22 compared to 2022/23.

## 4.6 Ecology and Biodiversity

A baseline report for the Biodiversity Management Plan was approved by the Sustainability Board in July 2023. The plan details the biodiversity found on the Waterside campus and targets our aspirations to conserve and enhance the natural habitats.

The plan is aligned with the current UK Government Strategy for England's wildlife and ecosystem services, including the setting of goals to halt the overall loss of biodiversity by 2020 and create targets for biodiversity recovery (DEFRA 2011).

To measure and monitor the abundance and distribution of flora and fauna across our estates, we have launched a citizen science surveying tool, The UON Nature Hub.

This web-based tool allows users to take photos of plants and wildlife via their mobile phone and upload them with GIS coordinates to a central database. The data collected will feed into both the UON biodiversity records and be shared with the Northamptonshire Biological Record Centre.



## 4.7 Engagement



### Halls H.E.R.O.E.S

The UON partnered with [Students Organising for Sustainability UK](#) and launched the [Halls H.E.R.O.E.S campaign – the sustainability competition between the residences!](#)

The Halls H.E.R.O.E.S campaign was aimed at all students who wanted to learn how to live more sustainably, gain a wider understanding of climate change and to develop skills and practice simple lifestyle changes.

Our Halls HEROES engagement campaign was hugely successful, seeing the UON placed within the top four in overall participation, out of over 100 Universities.



### Sustainability Champions

The Sustainability Champions' role was launched.

The Champions are a voluntary team representing our body of students and staff who are dedicated to identifying and implementing projects that raise environmental awareness in all aspects of UON's sustainability strategy, with key topics around food, nature, waste, recycling, energy and community.



## Sustainability Summit

The University organised its first ever [Sustainability Summit](#) in May of 2023. Led by Dr Ebenezer Laryea in close working with several colleagues across the University, this event brought over 150 delegates from over 40 different businesses, charities, HEI's and local government authorities to the University to identify shared sustainability challenges and devise a framework of action by which those challenges can be addressed. The main output of the Summit was the agreement of the Northampton Sustainability Accord, a multi-stakeholder commitment of shared sustainability goals that delegates agreed to work towards.

To ensure that the Accord framework is effective and achieves the desired impact, the Sustainability Local Innovation Partnership Agenda Hub (SLIPAH) was launched in July 2023. This research and knowledge exchange hub sits within the University's Centre for Sustainable Business Practices (CSBP) and has the mandate of coordinating all of the research, enterprise and knowledge exchange activities required to attain the goals set out under the Northampton Sustainability Accord.

## Sustainability Local Innovation Partnership Agenda Hub (SLIPAH)

Since its formation and launch in July of 2023, SLIPAH has been successful in attracting a total of £60k worth of grant funding to undertake a number of sustainability research and knowledge exchange projects and initiatives. The projects to which this grant funding relates touch on various aspects of the Northampton Sustainability Accord. So far, over 44 organisations have signed up as signatory organisations to the Accord, and SLIPAH has worked alongside its partners to build no less than three separate industry consortiums around our ongoing projects to ensure that these projects have the highest impact possible within industry.

*"It's a great honour to lead and work alongside several colleagues across the University to deliver on the objectives of our Sustainability Summit and Accord frameworks. The uniqueness of our model puts us in the enviable position of being the only HEI in our region to drive a such a bold and inspiring sustainability agenda amongst a large stakeholder base. As a University, we are immensely proud to be highly regarded by the stakeholder community as a partner upon which it can rely for innovative solutions and approaches to sustainability challenges through our cutting-edge sustainability research and knowledge exchange. With the climate emergency more evident with the passage of each year, we remain dedicated to our role of being a catalyst for positive action on sustainability and inspiring others to join us on a journey towards a more sustainable and resilient future for all in Northamptonshire and wider East Midlands region."*



**Dr Ebenezer Laryea**

Associate Professor of Sustainable Development Law  
& Chair of SLIPAH & CSBP

## 5.0 Issues to Address and Future Goals

Looking ahead, we commit to ambitious goals for the coming year. Our strategic focus includes new targets across all priority areas and we will employ innovative strategies to ensure the continued integration of sustainability into our operational practices and community.

- Finalise the Sustainability Strategy including embedding sustainability in education.
- Recruitment drives to underpin our ambitious and ever-growing sustainability goals, including an Energy & BMS technician, Energy & Carbon Officer and Environment and Sustainability Team manager; to monitor usage and consumption across the site providing pro-active support to target energy reduction measures.
- Ensure that the Biomass boiler is regularly serviced, essential parts are in stock and contracts supporting this function are robust and fit for purpose.
- Finalise the carbon reduction management plan and implement strategies to improve energy and utility efficiency across our estates.
- Increase engagement across all sites on waste reduction, recycling and encourage pro-environmental behaviours.
- Launch the Biodiversity Action Plan including extensive habitat surveys and a Biodiversity Net Gain (BNG) figure to competently monitor and preserve biodiversity across our estates.
- Launch the Travel Plan and Parking Management Strategy 2023 – 2028 when approved.
- Conduct a full review of our Environmental Management Systems (EMSs) to ensure the best frameworks and assessments are in place for incremental improvement of environmental performance.
- Ensure the UON continues to be compliant with statutory regulations and the Legal Register is regularly reviewed and updated.

# 6.0. Conclusion



The University of Northampton's Environment & Sustainability Report 2022/2023 reflects our dedication to creating a campus environment that aligns with global sustainability goals. As we celebrate achievements, we also recognise our shortfalls in the ongoing journey toward a greener and more sustainable estate.

We have identified the key role of concise and comprehensive data in steering our sustainability journey toward excellence.

In our commitment to improving our environmental management and achieving our sustainability targets, we look to implementing a new approach to collecting, analysing, and presenting data, across all our priority areas. This commitment is underpinned by our dedication to continuous improvement and the pursuit of ambitious sustainability goals.

The upcoming academic year will see increased efforts toward achieving our carbon reduction goals, with a renewed focus on innovative solutions. Through stakeholder engagement, we plan to strengthen ties with local communities and businesses; to work collaboratively on projects and educational programs addressing our shared sustainability challenges and advocating knowledge exchange.

Together, as a higher education community, we are dedicated to embedding a culture of environmental responsibility and lead by example in the pursuit of a more sustainable and environmentally conscious future.

# 7.0. Acknowledgments

The Environment  
and Sustainability  
Team

**VICTORIA BLAKE**  
Environment and  
Sustainability Manager

**GEMMA ROBINSON**  
Environment and  
Sustainability Lead

**HOLLIE DARBY**  
Sustainable Travel  
Advisor

**EMMA STONE**  
Environment Advisor

**DANIELLE BIRD**  
Energy Officer

University  
Leadership Team

**BECKY BRADSHAW**  
Chief Operating Officer

**TRACEY RUSSELL**  
Director of Estates and  
Campus Services

Writers

**GEMMA ROBINSON**  
Environment and  
Sustainability Lead