University of Suffolk
Campus Sustainability Report 2020/21

Executive Summary

This report summarises the key environmental sustainability initiatives and outcomes from the University's activities during the academic year 2020/21.

With partial campus closure during this period, the Covid-19 pandemic has continued to significantly impact on the University's environmental performance during the year, resulting in a further significant drop in carbon emissions throughout the academic year when most of the University buildings remained closed, or with low footfall.

The University performed well in a number of key areas, implemented a number of key energy efficiency initiatives and further developed campus biodiversity programs and projects associated with sustainable travel. The University remains committed to its wider environmental impacts across all areas of its operations and has strengthened its continuing partnerships and leadership with key local and national bodies.

The headlines of the University's Sustainability Report 2020/21 include:

- An Estates commitment to achieve carbon neutrality for scope 1 and 2 emissions by 2030, with a net zero target for remaining Scope 3 emissions by 2050.
- A 77% reduction in carbon emissions over the period 2015 to 2021, measured against the 2010 baseline.
- An additional 48kWp of solar panel installations at University buildings, bringing the combined total of campus power generation to 88kWp.
- Accurate water consumption monitoring across the Estate enabling the identification and fix of faults as they arise.
- Comprehensive energy efficiency measures within the East Building renovation and a detailed landscape design scheme that supports biodiversity, student and staff wellbeing and the enrichment of student experience.
- The successful design and approval of the Adastral Park EcoHouse Demonstrator, with research innovations identified for materials and technology testing post construction.
- Biodiversity projects involving student engagement through the campus' Wildflower Meadow and Wildlife Garden.
- The identification and installation of energy efficiency retrofit measure for the Long Street building.
- The development of new Facilities and Estates management approaches that ensure sustainability considerations are embedded during the design stages of all new projects and construction, and take into account associated environmental impacts, materials and infrastructure considerations and operational impacts.

Contents

1. Introduction

Over the academic year 2020 to 2021, the University of Suffolk further consolidated and progressed its implementation of and commitment to the UN Sustainable Development Goals.

This year was witness to enhanced progression against the Estates Sustainability Strategy for climate decarbonisation commitments and infrastructure projects, with additional key activities undertaken in delivering internal and external engagement. The Covid 19 pandemic continued to affect operational utilities usage, with further significantly reduced utilities consumption enhancing our overall environmental performance against reportable environmental impacts.

Whilst a scale up of investment this year in energy efficiency measures and renewables has contributed to improved campus performance, the analysis of carbon and financial savings due to project implementation is difficult to granulate due to partial campus closure.

It does however remain apparent, that as we continue to grow our campus building assets significantly more will need to be done to close the performance gap between low carbon net zero ambitions and campus building management, retrofit and construction. Through the Carbon Strategy and the emerging draft Estates Minimum Standards Document, we seek to identify further barriers to change and co-develop with external contractors and service supply teams, risked-based design solutions to address decarbonisation, water consumption and zero waste across construction, facilities projects and building operational lifecycles.

Dissemination of knowledge and collaboration remained a core theme for the University's Sustainability Agenda during 2020/21. Working with the directorates, Student Union, academic schools and external partners, we delivered a programme of stakeholder communications that sought to raise awareness, invigorate internal engagement and identify regional research and funding opportunities.

This report will present both an insight into our overall operational performance and an overview of some of the more significant initiatives that have taken place over the academic year 2020/21; covering campus operations, learning and teaching support and research and external partnerships community engagements.

2. Carbon and Utilities

This section covers our carbon and utilities performance over the academic year and presents those low carbon initiatives implemented during this period.

In June 2019, the UK Government legislated to update its greenhouse gas (GHG) emissions reduction target to reach 'net zero' by 2050. Meeting this target requires a steep reduction in UK emissions, with any remaining emissions to be offset by removing an equivalent amount from the atmosphere. As a large sector of the economy, higher education must reduce its carbon emissions if the Government's target is to be met. The majority of Institutes are now committed to reaching net zero across all scopes by either 2050 or earlier.

The National Union for Students (NUS) has recently created Students Organising for Sustainability UK (SOS-UK), a new charity led by the NUS President. On 17 October 2019, the President wrote to the OfS asking it to promote the student interest and lead the sector's response to the climate emergency, noting the lack of guidance for carbon reduction in the higher education sector since the transition from HEFCE to the OfS. Whilst

the OfS do not have the powers to set an emissions reduction target for the sector, the Climate Commission for UK Higher and Further Education has made a public statement on emissions targets and recently established a Climate Framework to guide and support all UK and Ireland universities and colleges to achieve net zero emissions by 2050 at the latest.

Working within Carbon Trust PAS 2060 definitions and adhering where possible to science based targets, the University of Suffolk is committed to achieve carbon neutrality for scope 1 and 2 emissions by 2030, with a net zero trajectory for remaining Scope 3 emissions by 2050.

2.1 Emissions

Emission reporting from 2021/22 onwards will require a substantial review and work is currently underway as to the most appropriate mechanism for presenting this data and monitoring targeted progress to carbon neutrality and net zero. However, for this reporting year, we will report against the pre-existing 2010 baseline to assist in informing 2020/21 progress.

Following on from the successful completion the University of Suffolk's carbon target to reduce carbon by 43% by 2020 against the 2010 baseline, the University is now in the process of producing a new Carbon Strategy to achieve carbon neutrality for scope 1 and 2 emissions. The new carbon policy plan will be ratified by the beginning of 2022.

As with 2019-20, partial campus closure due to Covid 19 over the reporting year has led to a favourable performance. With a 77% reduction in carbon emissions against the 2010 baseline, it is difficult to fully evaluate the impact of energy efficiency measures undertaken during this reporting year. However, it is considered that infrastructure improvements and the installation of additional solar PV would place a true reduction at a potential 55% reduction against the baseline. Key data headlines are reproduced below, whilst Table 1 presents the target progression from 2015 to 2021.

- Annual quantity of emissions in tonnes of Carbon Dioxide equivalent from the combustion of gas was 191.84 tCO2e
- Annual quantity of emissions in tonnes of Carbon Dioxide equivalent from the use of electricity was 406.24 tCO2e
- Total carbon for scope 1 and 2 emissions in tonnes of carbon dioxide equivalent was 598.08 tCO2e
- The annual quantity of emissions saved through on-site renewable generation was 41.3 tCO2e.

Table 1: *Carbon Reduction: University of Suffolk Sector Baseline KPI*

	2016/17		***2017/18***		***2018/19***		***2019/20***		***2020/21***	
	Target	*Actual*	*Target*	*Actual*	*Target*	*Actual*	*Target*	*Actual*	***Target***	***Actual***
Carbon emissions Scope 1&2 (tCO^2_e)	1,894	1,896	1757	1,151	1,622	1,145	1,541	940.27	**1541**	**598.08**

Reduction from 2009/10 baseline: 2,704 tCO^2_e	30%	30%	35%	42%	40%	57%	43%	65.23%	**43%**	**77%**

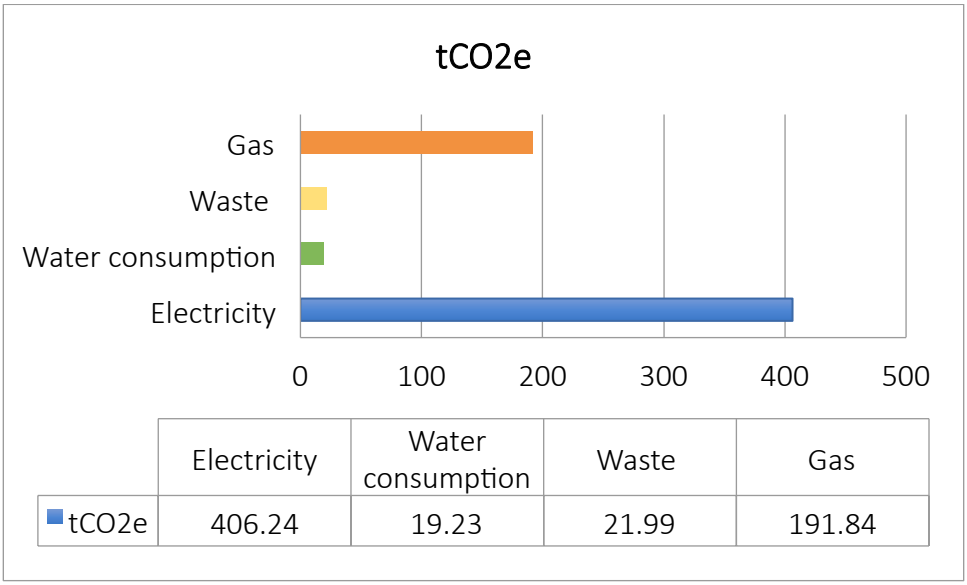
Our performance during the year can be further defined in terms of emissions per GIA/m^3 and per staff/student FTE, with comparisons against previous years' data presented in Table 2. Between 2017 and 2021 this shows a 35.33 kg $CO2_e$ reduction per m^2 of GIA across the estate, and a decline of 317.74 kg/person for total staff/student FTE.

Table 2: *Emissions per GIA and FTE*

Emission Definition	2016/17	2017/18	2018/19	2019/20	2020/21
Emissions per m^3 of GIA	57.41 kg CO^2_e	56.30 kg CO^2_e	42.98 kg CO^2_e	34.73 kg CO^2_e	**22.08 kg CO^2_e**
Emissions per FTE staff & Students	472.50 kg CO^2_e	456.76 kg Co^2_e	329.24 kg CO^2_e	273.07 kgCO^2_e	**154.76 kgCO^2**

All annual carbon emissions have been calculated by applying BEIS Government Conversion Factors for greenhouse gas (GHG). For the University of Suffolk, this produces total emissions of **639.3 tCO^2_e.** The conversions applied for Scope 1, 2 and 3 (water and waste) emissions are shown in Table 3 below.

Table 3: *University of Suffolk Emissions 2020/21*



	Electricity	Water consumption	Waste	Gas
tCO2e	406.24	19.23	21.99	191.84

2.2 Carbon Key Performance Indicators 2030 to 2050

Following the successful conclusion of the HEFCE set carbon target of 43% reduction against the 2010 baseline, careful external research and discussion has been underway during the academic year 2020/21 as to how best to approach KPI's for carbon with regard to appropriate performance targets and mechanisms for carbon accounting measurement. The University recognises the need to act with commitment and at pace within the context

of a new Carbon Management Plan to address the Climate Emergency as detailed by IPCC findings and government targets as laid down within the Climate Change Act 2008 (as amended) and to this end has set a commitment to achieve carbon neutrality for scope 1 and 2 emissions by 2030, with a net zero target for remaining Scope 3 emissions by 2050. This plan also proposes to reinforce the Universities commitment to the UN Sustainable Development Goals creating wider opportunities for education and engagement on climate and decarbonisation.

Using the Greenhouse Gas Protocol, we have previously accounted for our emissions within the three scopes of emission sources measured in tonnes of carbon dioxide equivalents. Through estates scope 3 emission data capture has been restricted to waste and water metrics, a format that will need to be expanded to include institutional wide data for:

- Business travel
- Commuting
- Supply chain activities
- Procurement

if we are to now accurately achieve reporting statistics for our return categories under international and UK wide requirements.

Scope 1 and 2 Emissions: Carbon Neutral by 2030

Our carbon journey will be divided into key phases, to better enable targeted management and drive forward at an investment and institutional pace of change that is achievable. These phases will run simultaneously as we move forward to the ultimate goal of net zero by 2050 or sooner.

Scope 1 emissions are those emissions that are caused from the combustion of fuels, such as natural gas, or generated by university controlled sources such as university owned vehicles. Scope 2 emissions are the indirect emissions from the purchase and consumption of grid supplied electricity. To achieve carbon neutrality we will need to reduce as close to zero all CO_2 emissions from heating and power across campus by 2030. Carbon neutrality allows a degree of compensated off setting, so for every remaining tonne of CO_2 we are unable to mitigate an equivalent amount must be removed through a third party verified carbon sequestration scheme. Taking a carbon neutral approach for scopes 1 and 2, will initially be necessary in order to effectively manage those areas of campus infrastructure, or tenancy that are reliant on gas until we are able to replace with decarbonised gas solutions, or fully electrify our building and tenancy assets. We will keep our approach to this issue under review, working with partners to explore solutions and high quality, offset ecological projects by our target date.

Setting KPI targets for Scope 1 and 2

Tracking progress will proceed in a similar manner to our previous HEFCE target, with annual percentage step target decreases interlinked to management action plans that will under pin the overarching Carbon Plan. This will form the foundation of our future reporting against carbon neutrality and net zero. The baseline year that we will adopt will be 2018/19 as this was the last fully operational year of reported emissions prior to Covid-19. However, there is still work to undertake on deriving the final baseline figure of tCO_2e as assumptive emission data for the East Building and Oberon House at Ad Astral will need to be included to this figure. Sustainability Estates is currently working with PM's to obtain EPC data once

it becomes available. We will continue to monitor what the science tells us and may adjust these step targets or introduce science-based targets as required. A fully worked up methodology and step target KPI's will be completed and available before the end of the calendar year.

Scope 3 and Net Zero by 2050

Moving forward with our Scope 3 emissions and in collaboration with departments and schools we will need to seek institutional wide collaborative targets for purchased goods and services, business travel and investments, it is to be appreciated that as this data may not currently be fully collected in a format we can use, we will require a period of time to establish a baseline. We will also set within Estates renewed KPI's for waste and water. Targets for waste and water will be available by the end of the calendar year and we will work towards securing challenging zero waste and water conservation targets that drive environmental performance improvement and net zero carbon outcomes by 2050.
Additional Scope 3 targets will require leadership and collaboration to secure methodologies, data collection, reporting mechanisms and step target agreements.

2.2. Utilities Costs and Consumption

The impact of partial campus closure continued to be observable in utilities costs and consumption for the year. Overall energy and water costs, after initial adjustments, were £577,162 2020/21 an increase of 3.39% from the previous year and in line with campus utilities expenditure experienced last year through partial campus closure. Increase in water expenditure was up 12% on the previous year and can be attributed to accurate consumption measurement and a water leak associated with groundworks near the Hold.

With energy contract reviews due in the Spring of 2022, a move across to a renewable electricity contract is in the process of being explored, within our existing procurement consortium.

Overall combined contracted utilities consumption figures for gas and electricity for 2020/21 were 3,116,108 kWh, a decrease of 25% on the previous year. Whilst partial campus closure continues to play an evident role in these statistics, (when taking into account the similarity in last years campus occupancy footfall), there is strong evidence to support the impact of on site renewable energy generation of 58,261 kWh on this reduction percentage.

3. Display Energy Certificates

A Display Energy Certificate (DEC) is a legal requirement for all public buildings with a usable floor space over 250m2. The building's energy performance operational rating is based on its carbon dioxide (CO2) emissions for the last year. It is given a score and an operational rating on a scale from A (lowest emissions) to G (highest emissions). The typical score for a public building is 100, giving it an operational rating of D. Although there is no specific target set for the proportion of rated University buildings, there is a sector expectation to obtain an average DEC rating of D or better.

Performance improvements this year are again observable within the Arts Building due to the roll out of LED lighting and infrastructure maintenance and upgrades. However, the James Hehir Building continues to under perform and investment opportunities and space utilisation considerations will require careful evaluation to ensure we fully realise this asset.

Table 4: *Display Energy Certificates Performance and Comparison*

Building	DEC Rating 2019/20	DEC Rating 2020/21	Floor Area (m^2)
Arts	B (44)	B (38)	3727
Atrium	B (41)	B (36)	11293
James Hehir	E (101)	E (104)	3649
Waterfront	C (62)	C (60)	10680

As outlined in the Annual Report for 2019/21, the usage of the University's 'newer' buildings (Waterfront and James Hehir) including server rooms, labs, cafes etc, does present challenges in bringing these to the efficiency standard established in the fully refurbished Arts and Atrium buildings.

Behavioural and management systems are of equal importance to improving energy efficiency within James Hehir. The Laboratory Efficiency Assessment Framework (LEAF) is an environmental accreditation scheme designed to improve sustainability within higher education teaching and research. The scheme covers a multitude of criteria, from waste disposal to procurement, energy efficiency and chemical management, enabling technicians and lab managers to quantify their environmental and financial impact. Estates and EAST technician staff have made an initial exploration of the scheme and further discussions are underway to explore implementation. The scheme could prove equally applicable to other laboratory areas across campus.

4. Energy Efficiency Initiatives

4.1 Fossil Free Declaration

In March 2021, a unanimously agreed decision was taken by the University's Executive Committee to affirm a fossil free investment status and commit to the People and Planet Fossil Free Declaration. People and Planet is a student-inspired campaign network for social and environmental justice, working in partnership with the National Union for Students. Specifically, the University declared that it holds no direct investments in extractor fossil fuel companies, and will never directly invest in these companies. The University became the 18th signatory to make this public commitment.

4.2 Solar Panels

The campus decarbonisation solar roll out program continued this year, with an initial install of 21 kWp on the Library roof in February, and an additional 36.90 kWp install on the remaining Library roof area and lower Studetnt Union roof in July. These panels are SolarEdge string inverter with panel duel optimsers, which ensure that Estates can monitor performance and production in real time and capture data for analysis.

With existing generation capacity on the Atrium roof, this now brings our installed capacity to 88kWp. An addition 34.65kWp array will be installed on the East Building roof, following building handover in 2021/22.

Combined systems have generated some 58.261kWh of solar electricity during the reporting period, representing a saving of 41.3 tCO2e.

4.3 Long Street

Retrofitting legacy buildings can be a challenge when seeking to enhance energy efficiency and environmental performance. Long Street building refurbishment is currently underway with high specification Alitherm 800 windows which utilise innovative polyamide thermal break technology, creating a barrier between the cold air outside and the warm air inside, have been installed. This material technology will significantly reduce thermal transmittance and enhances the overall U Value and heat retention of the building.

Asbestos roof slates have been replaced with Eternit slate tiles. These have an A+ rating (the lowest environmental impact) in the Building Research Establishment's Green Guide and a low carbon footprint of 13 CO2e/m2. Further improvements will be made to the building during the refurbishment process over 2022.

4.4 The Hold Battery Storage

The Hold Battery Storage facility build was completed in February 2021 and, after some initial challenges, operational. University and Suffolk County Council staff have received training on the software platform and data will be available to those students and researchers who would benefit from it.

4.5 Travel Plan

Implementation of the Action Plan accompanying the University Travel Plan progressed well over 2020/21 and there was an observable increase in the number of staff taking advantage of the Cycle to Work Scheme.

Project initiatives include:

- Support of and signatories to the Ipswich Cycling and Walking Charter;
- Ipswich Bike Project: From May the University teamed up with the Ipswich Bike Project, located on the Waterfront to offer free basic bike repairs to all staff and students. The uptake for this initiative has been positive and we are keen to explore something similar in the coming academic year;
- Additional large bicycle equipment lockers have been procured and are now available in the Atrium. Locker usage will be monitored to ensure that appropriate levels of locker availability and their usage are understood to assist future cycling facilities planning;
- A 16 Bicycle green roof lockable bike cage has been procured and will be positioned near the Arts Building during the Autumn of 2021;
- A street furniture bicycle pump has been procured and will be sited near the lockable bike cage during the Autumn of 2021.

4.6 Electric Vehicle (EV) Charging

Four electric vehicle-charging stations are now available on Long Street, one of which is available for disabled use. These form an important part of our Travel Plan as we move towards national decarbonisation, future scenarios regarding technology change, modal shift and the evolving travel requirements of the University population. Following the resumption of campus footfall, usage will be monitored and additional facilities installed once the need becomes evident.

Discussions are currently underway to consider an EV Salary sacrifice scheme for University Employees, to help both encourage the modal shift and provide extended staff benefits.

4.7 East Building

There are a number of energy efficiency inclusion design features within the East Building refurbishment. These will go some way to ensuring the building resilience to increasing energy costs and carbon emissions and support progression towards decarbonisation.

- Improved performance of Building Fabric & Services by replacing old single glazed metal framed windows with new double glazed and thermally broken high performance windows, reducing heat loss and conserving energy;
- Improved airtightness and reduction of heat loss by air leakage due to installation of new windows and doors;
- Improved insulation thickness/performance to existing roof areas, reducing heat losses and conserving energy;
- Removal of fossil fuel based space heating systems (gas fired boiler to radiant heaters) and replacement with high efficiency electric powered heat/cooling system;
- Removal of old mechanical ventilation system, and replacement with new system including new Air Handling Units with high efficiency heat exchangers, that pre-heat fresh air using the extracted warm air, conserving energy;
- Specification of low water use sanitary fittings, avoiding waste of potable water resources;
- Low energy use LED light fittings throughout, with automatic lighting controls to reduce energy when areas are unoccupied.

Post refurbishment hand over, approximately 35kWp PV Solar Array will be installed on the upper roof section, which should further reduce the consumption demand during occupancy.

4.8 DigiTech Hub: Eco House Demonstrator

The Government's consultation on The Future Homes Standard sets out plans to increase energy efficiency for new homes and requires new homes to be future-proofed with low carbon heating and energy efficiency by 2025. This fast moving policy landscape has required a number of iterative adaptations to the original design for the Eco House Demonstrator. With the overriding requirement to ensure the Demonstrator can combine the creation of a zero- carbon operation home, with a low carbon build, whilst still remaining affordable. Studio Manifest in collaboration with the Digital Skills Project Manager and Estates has worked hard to visualise a design that meets the brief. Following sign off, construction will begin in Autumn 2021.

Once constructed the project will provide a facility for reviewing different ways of delivering low cost, low carbon homes and monitor materials and technology performance. The SSI is currently well progressed in discussions with three separate companies at various stages of design innovation who are keen to collaborate with the University utilising this space to test their innovations.

5 Water

Work on the installation of Automatic Meter Readers across the Estate was completed in June 2021. We are now able therefore to accurately read our water consumption and ensure that billing is in line with consumption, helping us move away from difficult to manage estimations. Undetected or unresolved leaks have historically caused large water consumption charges, reduced water pressure and physical damage.

AMR has enabled us to quickly identify unusual water consumption caused by leaks, ensuring our ability to act to fix the leak and minimise costs and other repercussions. Over nine lavatory cubicle units have been identified as being on continuous flush due to hard water destruction of fittings within hours of failure and a large underground water pipe leak identified on New Street remediated since their installation this year.

Training for staff users on the Core online platform has also been completed, ensuring that staff are able to log monthly readings and receive immediate alerts to faults and failings.

University water consumption for 2020/21 was 18,641 m3, in line with usage for 2019/20 at a cost of £48,630. Using Defra Carbon Conversion Factors for 2021, data gathered from utilities bills and water meters reveal a scope 3 carbon emission equivilent of 2,777.5 kg CO2e.

Consumption and costs are anticipated to increase during 2021/22 as the campus returns to normal usage. Water conservation will form an important aspect of facilties surveying during 2021/22, to enable the development of a costed long term conservation strategy.

6. Waste

Total waste mass has *increased* from 106.937t in 2019/20, to 128.335t 2020/21. Waste fate analysis shows an increase in the recycling rate to 97%, an excellent improvement on last years achievement, with only 2.03% waste sent to landfill. Defra waste conversion factors for scope 3 waste represents 21.994 kg CO2e.

The increase in total waste mass is in some part attributable to the clearance of the waste compound on Long Street and the removal of street lamps for disposal. Further disposal challenges are continuing to be experienced through furniture asset disposal, of which there has been a considerable volume in the last 48 months. This looks set to continue into 2021/22 with the move across to agile working necessitating the additional disposal and replacement of office and IT equipment.

The University's high turnover 'fast furniture' model experienced in the last 5 years is exceedingly wasteful in a material sense, with the result that a substantial amount of resources and financial value embedded in products are lost at the point of disposal. Although a high percentage of these items are close to 100% recycled, the loss in value and associated negative environmental and social impacts, mean that there is a clear case to rethink office furniture procurement, with internal redistribution, sale/reuse and product material composition needing to form a critical consideration during early future project decision making.

Implementing asset source waste reduction will also require controlled procurement mechanisms, which evaluate purchasing strategies and create visibility of existing assets and opportunities to share resources and manage data. Whilst data is available for the

environmental impact associated with waste disposal there is no current means for assessing and documenting the economic impact of procurement associated with replacing serviceable assets before end of life.

Sustainability is now being considered as part of Estates and IT project planning, with scope to interrogate wider asset management during 'fit out projects' across the estate, moving towards zero waste across asset lifecycles. This will form an essential work stream for 2021/22.

6.1 Collaborative Contract Partnerships

This year, Estates have progressed a strong culture of collaboration with key contractors and suppliers. This is ensuring clear accountabilities and a mutually beneficial environment for all organisations by ensuring the sharing of information and the creation of discourse around the identification and implementation of more sustainable operations, both improving the return on our contract investments and our ability to manage resources and reduce the environmental impacts of our operations.

An early success of this approach can be appreciated through the following project undertaken by Churchill's, who are responsible for providing our cleaning services. As part of our joint commitment to the reduction of single use plastic, a switch from plastic cleaning fluid containers was made at the onset of 2021 to water-soluble packaging sachets. To date this has resulted in 101.92kg of plastic waste reduction.

6.2 Lateral Flow Tests and PPE

The Covid-19 pandemic has led to the generation of new plastic waste streams for disposable lateral flow tests and PPE. In adherence with Health and Safety and waste disposal regulations, recycling boxes have been sited within all main University buildings for the collection of this complex waste stream. Collections will be received by Reworked, shredded, processed and pressed into 100% recycled plastic board.

6.3 Food Waste Composting Project

As a result of partial campus closure, the waste-composting scheme was suspended during the reporting year. This has afforded us the opportunity to re-site the facility and refine the collection and caddy cleaning procedure ready for a re-launch in January 2022.

7. Campus Biodiversity

The University Biodiversity Plan 2019–2024, has continued to drive biodiversity project implementation across campus throughout 2020/21, with milestones achieved against the Biodiversity Action Plan. Urban biodiversity and the creation of student and staff experiences that support connections and contact with nature create not only positive well being outcomes, but living lab curriculum and research opportunities.

The following projects have been instigated this year to great success:

- **Bronze Award Hedgehog Friendly Campus:**
  In March 2021, in collaboration with Estates, the Wildlife Society were successfully awarded the Bronze Hedgehog Friendly Campus Award. The University continues to work with students to obtain Silver over the coming academic year.

- **Student Wildlife Garden**:

In March 2021, work on ground preparation for the Student Wildlife Garden began behind the Arts Building. This project will make available to student societies the opportunity to develop and monitor habitat regeneration on campus and forms part of the wider Biodiversity Plan to extend habitat networks across the estate.

With the easing of Covid restrictions, a number of Estates supported volunteer student session have taken place, including the planting of edible hedging, the creation of a pond and the initial formation of a bug bank. Regular supported sessions will further enhance this wildlife area over the coming academic year.

- **Wildflower Meadow:**
  For the first year of sowing, a heritage cornfield annual selection was distributed on land next to New Street. Cornfield Annuals are quick to establish and made for an impactful landscape from late April through to September, whilst supporting invertebrate and bird species.

  Maintenance is low cost and will be conducted during the autumn with student volunteers and a charity partner. Supplementary sowing will be undertaken to introduce a broader robust mix of perennial wildflower mix and with assistance from the student body baseline biodiversity surveying undertaken in early spring and late summer. An information board is to be sited next to the meadow to raise awareness and promote the benefits of urban biodiverse space.

- **Swift Box Installation**
  Over the winter of 2020/21, following guidelines and collaboration with Suffolk SOS, Swift Boxes and a call system were installed on the Atrium roof.

- **East Building**
  Addressing landscape design through a sustainability lens for the East Building, has provided Estates and the School of Health and Sports Science with an opportunity to integrate urban landscape ecology and campus community well-being, with visual aesthetics that go beyond the normal urban landscape design process.

  This approved design will implement the following initiatives, which will be fully planted and landscaped by early spring 2022:

  - **A wrap around Physic Garden:**
    Carefully selected botanical species of historical interest have been chosen to connect space users to the building, honouring the passage of time and the evolution of healthcare pedagogy. They will also provide a critical space for nature, extending the ecological corridors for target species across campus.

    Insects, birds, bats and other foraging mammals are supported by the selection of natural habitat planting, with the addition of Rowen trees and supported green wall trellising, softening the visual aesthetic, improving air quality and yielding significantly higher biodiversity value and net gain then traditional urban landscaping offers.

  - **Campus University Allotment:**
    The Paramedics Courtyard is an essential space provision for teaching and learning, however the space also presents a communal landscaping opportunity. Working with key stakeholder the campus University allotment design ensures that this multi-user space provides the benefits of gardening and fresh produce, without impact on curriculum. This will be a particularly beneficial asset to campus

community members who may not have access to an outdoors space for growing and for all to benefit from the wide spectrum of mental health benefits associated with allotment activities.

- **Green roof system**:
  The installation of a small sedum green roof system within the upper courtyard space of the building.

8. Buildings and Projects

A number of specific Estates wide management approach initiatives were addressed during 2020/21, underpinned by a Directorate cultural change that brings together internal clients, project managers and contractors with an embedded sustainability input at project design stage and through out the project, or contract lifecycle. This collaborative approach utilises joint expertise to deliver better outcomes, focusing capital outlay considerations on the reduction of operational costs associated with utilities consumption, extended infrastructure lifecycles and safe and circular material selection.

Sustainability management is further facilitated for smaller projects through the new Project Request Form, enabling early environmental impact evaluations to be undertaken to ensure projects are brought forward into the financial planning process with the opportunity to shape innovative and effective solutions that additionally address lifecycle risks and address decarbonisation.

9. Engagement and Events

Engaging the University community and our external business and public sector partners on environmental and sustainability issues is key to ensuring that the University is able to not only make continual improvements in its sustainability performance, but also unlock opportunities and shape thought leadership.

9.1 The Prince's Trust

Collaborating with The Prince's Trust, the University won and completed a commission to design a nine-week showcase Sustainability Module sponsored by Howden Groups Holding, to be launched in The Prince's Trust Achieve programme. This module provides content rich material covering three core units in Energy and the Environment, Global Citizenship and Building a Sustainable Business.

9.2 Events

The University ran the following events during the reporting year, training 130 participants in total over a range of subject matter:

- The Built Environment as Sustainable Eco Systems Presentation: 15 attendees
- Biodiversity Net Gain Presentation: 10 Attendees
- Carbon Literacy Student Workshop: 16 Attendees
- Ricardo Energy Climate Change Workshop: 30 attendees
- Business Breakfast: Earth Day: 42 attendees
- Online Community Workshop: 16 Attendees

9.3 Curriculum Support

Curriculum degree support during the academic year was provided for:

- Wildlife Conservation and Ecology Science Degree: Sustainability and Applied Conservation Module: Design and delivery
- Architecture Degree: 1 lecture session, Bats in Urban Environments: Design and delivery
- IPL The Professional in the Team: 4 lecture sessions, Sustainability in the NHS: Design and delivery

9.4 Working Groups and Committees

The University continues to be actively represented and a key contributor working within the regional Sustainable Development arena on the following working groups and committees.

- NALEP Decarbonisation Academy
- Suffolk Climate Change Partnership
- Carbon Charter Panel Member
- ENE Research Steering Group Member
- Anglian Eastern RFCC Environment Sub Group: Regional Partners
- Student Union Suffolk Sustainability Group
- Low Carbon Homes: Regional Group