

Environmental Sustainability Plan 2021-23

Theme	Objective and target Description	Where (and who will this apply)	How (Actions required)	Who/Lead (responsible person)	When (Target Date)	Status
Emissions - Energy	Reduce carbon emissions to meet net-zero carbon emissions by 2050 (as a minimum) across scopes 1, 2 and 3.	Estates Directorate Procurement Department	<p>Identify of range of energy programmes as required by the Carbon Management Plan Technical Group. e.g. Voltage Optimisation Programme, Sub-metering, PIR Installation, Insulation projects, CHP, Low Carbon Technologies. – Energy M&T</p> <p>Appointment of consultants to support development of bespoke net-zero carbon targets for QUB to cover scope 1, 2 and 3, carbon off-setting, climate change adaptation and associated costed action plan.</p> <p>Establish baseline, identify target date for scope 1, 2 and 3, identify opportunities-costed and prioritised to achieve net-zero by set date.</p> <p>Implementation and delivery of QUB Net-Zero Strategy</p>	Head of Sustainability Energy Manager	<p>Ongoing</p> <p>September 2022</p> <p>September 2022</p> <p>December 2022 onward</p>	<p>Number of energy efficiency projects on going:</p> <ul style="list-style-type: none"> • CHP units continue to operate efficiently at the Queen's Elms Site, DKB/Ashby Site, Main Site and Health Sciences Campus; Recurrent annual savings yielded from these initiatives is in the region of £950k. • Additional minor works projects to the value of identified £160k identified and implemented. • Significant Geothermal project installed at new Riddell Hall Business School – Pioneer project for Geothermal in NI. <p>New Carbon Strategy currently being developed to align with new government target to achieve Net Zero Carbon by 2050 – this will cover scope 1,2 and 3 emissions; Carbon off setting; Carbon Adaptability. This is being taken forward by the Carbon Management Development Group.</p> <p>Procurement of consultancy services is in process.</p> <p>Feasibility assessment underway for identification of demonstration/ pathfinder projects on QUB Main Site e.g. Maths and Physics Teaching Centre.</p>

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<p>Sustainability Engagement Programmes</p>	<p>Objective – deliver phased pilot lab sustainability programme across the university. Targets:</p> <ul style="list-style-type: none"> • 2021/22 (pilot phase) is 12 labs; • 2022/23 33% of all labs, • 2023/24 66% of all labs, • 2024/25 100% of all labs. <p>Objective – development of a new staff and student behaviour change programme to incentivise positive environmental behaviours.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Implement a pilot sustainable reward scheme – commencing September 2022. • Target two is the development and pilot of Queen’s Sustainability Accreditation Scheme – commencing November 2022. <p>Objective – increase carbon literacy levels across the University.</p> <ul style="list-style-type: none"> • Phase One - 2021/22 - delivery to 200 students. • Phase two – 2022/23 - 500. • Phase three – 2023/24 - 800. <p>Objective – development of a rebranded Environmental Leadership Programme (Degree Plus Accredited).</p> <ul style="list-style-type: none"> • Roll out October 2022 with 25 students. <p>Objective – Provide funding source for students and staff to delivery their own sustainability projects on campus</p> <ul style="list-style-type: none"> • Fund £20k of projects over 12 months between September 2022 and July 2023 <p>Objective – Integrate sustainability activities within existing courses Engage with 200 students through existing courses by July 2023</p>	<p>Estates Directorate</p>	<p>Implement Change Management initiatives.</p> <p>Review current labs, identify new labs, launch in September 2022.</p> <p>Review existing sustainability engagement programmes, identify key programme that will appeal to staff/students and launch in September 2022.</p> <p>Review sustainability criteria relevant to sustainability infrastructure, senior management engagement and engagement, create resources and launch in November 2022.</p> <p>Liase with key schools to ensure recruitment is achieved, promote to staff and set dates by September 2022.</p> <p>Deliver training in each Faculty via Carbon Literacy Champions – NBE (EPS) Management School (AHSS), School of Biological Sciences (MHLS) as well as central course for staff and students outside this cohort.</p> <p>Review current ELP, engage with key facilitators, recruit students and launch in October 2022.</p> <p>Update Green Fund resources, organise communications and launch in September and March (closes November and May)</p> <p>Liase with key schools to ensure engagement workshops have been planned for 2022/23 academic year.</p> <p>Update workshop resources.</p> <p>Create calendar of events that includes key campaigns, engagement programmes, events, communication pieces.</p>	<p>Head of Sustainability</p> <p>Environmental Manager</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	<p>Ongoing</p>	<p>A new sustainability program for labs has commenced for laboratories – LEAF. In 2021/22 12 Labs received Bronze Accreditation. Recruitment for 2022/23 will commence in September 2022 – aim to increase number of labs engaged in LEAF by 33. In the process of reviewing the range of labs present within Queen’s University.</p> <p>New pilot Sustainability Engagement Programme will be launched in September 2022. Pilot will be progressed with Accommodation (Elms Village) and key staff departments. Creation of a summary report has been created for review by the Change Management Committee.</p> <p>Initial research into the creation of a Queen’s Sustainability Accreditation Scheme has taken place, with a report following for review of the Change Management Committee.</p> <p>Over 250 students and 34 staff trained during 2022/23 Discussions have been undertaken with relevant academic staff and dates will be agreed with facilitators (Keep Northern Ireland Beautiful).</p> <p>Master Your Environmental Leadership Program was hosted in collaboration with Graduate School during 2021/22. 18 students participated and will qualify for Degree Plus. Research is currently being undertaken into restructuring/rebranding the programme for October 2022.</p> <p>University Green Fund will be re-launched for 2022/23 after it was put on hold for Covid. 42 projects funded to date.</p>
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	<p>Objective – Undertake a rolling calendar of events, campaigns and communication pieces.</p> <ul style="list-style-type: none"> Plan in place by September 2022. 					<p>Engagement activities include design challenges/employer challenges with the Graduate School (50 Students), MSc Construction Management (100 Students) and Natural and Built Environment (50 Students) will be undertaken during 2022/23.</p> <p>Awareness weeks included a mixture of online campaigns, events and in person activities. Awareness weeks promoted include Green Week, Fairtrade Fortnight and Active Travel Month. Web pages and ezine format updated and improved to increase engagement including alignment with the SDG's. Development of a 'sustainability corporate website' is currently ongoing.</p>
Sustainable Design and Construction	<p>Objective - Improve Sustainable Design and Construction of New Builds and Refurbishments.</p> <p>Targets:</p> <ul style="list-style-type: none"> Achieve BREEAM Excellent for New Builds >£1,000,000-ongoing Achieve BREEAM Very Good for Refurbishment – >£1,000,000 <p>Objective - Embed net-zero carbon principles and requirements across all our design and construction specifications in line with forthcoming net-zero strategy requirements – September 2023.</p>	Estates Directorate	<p>Use applicable BREEAM criteria for new builds and refurbishment projects from early design stage and integrate within design criteria, reporting progress at each RIBA stage.</p> <p>Review the Sustainable Design Development Brief and develop an alternative appropriate process.</p> <p>Recruit and appoint an Estates Manager Sustainable Construction to lead embedding of sustainable design and construction principles across University projects.</p> <p>Review and update of all applicable specifications integrating appropriate sustainable design standards.</p> <p>Delivery of costed net-zero action plan - including development of sustainable design principles and standards.</p>	<p>Head of Sustainability</p> <p>Head of Estates Planning</p>	<p>Ongoing</p> <p>September 2023</p> <p>September 2022</p> <p>Nov – Sept 2023</p> <p>Dec 2022 onward</p>	<p>7 BREEAM Excellent</p> <p>6 BREEAM Very Good</p> <p>Sustainability design and construction standards will be reviewed as part of the development of the next stage of the University carbon reduction strategy – including exploration of other standards – Passivhaus / SKA etc.</p> <p>Recruitment for Estates Manager (Sustainable Construction) has commenced.</p>

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<p>Waste Management</p>	<p>Objective - Increase percentage of waste recycled and reduce volumes of waste generated – ongoing. Target:</p> <ul style="list-style-type: none"> Maintain figure of 99% of waste diverted from landfill from July 2019 onwards. 	<p>Estates Directorate</p>	<p>Improve use of existing recycling facilities for staff and students. Extend waste streams which can be recycled. This will include extending the roll out of Food Waste, Ban the Bin. Develop waste/resource strategy/circular economy strategy - May 2023 Completion of waste audit/review across the Estate focus on high impact areas (integrate with student projects) – March 2023 Review consumables and align with waste audit to determine opportunities for eliminating/ reducing waste streams (including Single use Plastics and avoidable packaging) March 2023 Review and improve recycling bin provision and information in key areas - ongoing Roll out of the Queen’s reusable ‘2 Go Cup’ - August 2022.</p>	<p>Estates Manager (Environmental) Assistant Estates Manager (Environmental) Estates Manager (Environmental) Assistant Estates Manager (Environmental) Head of Campus Food and Drink</p>	<p>Ongoing</p>	<p>Current recycling and recovery rate is 99.9% for Municipal General Waste i.e. 99.9% diverted from landfill. Reviews/actions undertaken to increase recycling/decrease waste:</p> <ul style="list-style-type: none"> Furniture donations to number of Charities/Schools/Clubs –Oxfam, Habitat for Humanity and use of WARP IT. Review of current internal waste arrangements undertaken to introduce improvements – improvements actioned within Clinical A, Whitla Medical, University square (July 2023). Staff/ student working group established to review use of single-use plastics and identify opportunities for reduce single-use plastic across the University. Identify and action new waste streams - Review external recycling provision – maximise cardboard recycling (July 2023). Improve recycling signage of internal bins (September 2021). Future work on signage will include engagement with students via the new sustainability engagement programme – November 2022 (Waste Reduction Week). Working with staff and students to undertake waste projects with the aim to establish recommendations and actions that minimise waste production and bin contamination. Student project to review waste streams completed between Nov and June 2022 – identified need for further work on segregation of waste streams. <p>Waste Management Contract tendered and awarded - focus on landfill diversion and contributing to circular economy.</p>
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<p>Travel and Transport</p>	<p>Objective – Increase uptake of Sustainable Travel across the University</p> <p>Targets:</p> <ul style="list-style-type: none"> Travel to Work Survey will take place in October 2022 allowing up to date targets to be established. Creation of travel strategy for December 2022. Maintain Cycle Friendly Employer Accreditation Gold – on going – 2022/23 <p>Objective - Increase cycling provision across campus via education, engagement and enhanced infrastructure.</p> <p>Targets:</p> <ul style="list-style-type: none"> Engage with external providers to host 8 events by October 2022. Provide additional cycling parking for a further 100 bikes across the campus by June 2023. 30 bikes leased to students by December 2022 via hub 55 recycled bikes (increase of 20% on 2022 figure) sold by June 2023, 480 services (increase of 20% on 2022 figure) by July 2023 <p>Objective – Increase availability of EV Charging</p> <ul style="list-style-type: none"> Install 3 additional EV Charging points across the campus by December 2023 <p>Objective - Engage with Translink and external stakeholders including Belfast City Council, Ulster University and Belfast Metropolitan College, to make public transport a more attractive option for staff and students travelling to the University.</p>	<p>Estates Directorate</p>	<p>Implement the continual implement plan attached to the University Trave Plan Appointment of consultants to support development of a Travel to Work Survey and travel strategy. Completion of Staff and Student Travel to work surveys - October 2022 Undertake feasibility study to determine cost and options for moving current fleet (25 vehicles to EV) – October 2022 Liase with internal communications to promote the survey and strategy. Install at DKB,MBC and refresh at Admin building – December 2022</p> <p>3 additional locations identified for EV's – funding secured</p> <p>Work with key stakeholders to determine potential of a Belfast working group around Sustainable travel -November 2022 Continue to progress the Open Botanic Project – e.g. Round table with key MLA's and councillors via Public Engagement – September 2022 (dependent on NI Assembly returning)</p>	<p>Estates Manager (Environmental)</p> <p>Assistant Estates Manager (Transport)</p>	<p>2020/21</p>	<p>2018 demonstrated a reduction in staff dependence on single occupancy car travel from 33.7% (2015) to 30.6% and a reduction from 16.4% (2015) to 13.4% in student travel.</p> <p>2020 Travel Survey undertaken to inform next stage of the Travel Plan: Reduce single occupancy car journeys by staff and students in accordance with Travel plan targets. 5% reduction in staff travelling to the University by single-occupancy car journey by 2020/21. 5% reduction in students travelling to the University by single-occupancy car journey by 2020/21 Development of current plan under review considering COVID and significant change of working / travel patterns, plus the universities Net Zero aspirations.</p> <p>Active travel hub on campus, in partnership with Big Loop Bikes, was established and launched in September of 2021 – 30 bikes leased, 45 recycled bikes sold, 400 bikes serviced.</p> <p>Range of events have taken place during Bike Week – 2xDr Bike Session, Cycle Security Marking, talk with Cycling UK. Four events are being planned for September/October time to tie in with the return of students. Events will include bike sales, cycle security marking.</p> <p>In 2020/21 several cycle parking spaces were put in place - 60 in MBC, 30 in Ashby, 34 in the main site. 2021/22 there is a target to enhance number of cycle parking spaces by 100. 20 spaces have been incorporated into the main site. 80 remaining – June 2023</p> <p>Accreditation to Cycle Friendly Employer Accreditation – Gold Standard - first employer in the UK to achieve the standard Cycle + (Cycle to Work Scheme) in 2019. Awarded for 2021/22.</p> <p>Range of public transport incentives and promotions by Translink – monthly attendance on site – ongoing. Key awareness events (Bike to Work week, Bus and Train Week) are promoted – range of events and online campaigns took place in June 2022. Promotion of the pedometer challenge – wellbeing and travel initiative – June 2022. Open Botanic project – working with School of Natural Built Environment and Public Engagement - proposal for a cycle lane on Botanic Ave. developed. Meeting with Minister to raise profile of the project. Now included within Bolder Vision for Belfast.</p>
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<p>Biodiversity</p>	<p>Objective - Increase awareness of biodiversity amongst staff, students and the local community. Target:</p> <ul style="list-style-type: none"> • A minimum of 4 biodiversity events for staff and students to participate in – June 2023 • 6 communication pieces highlighting the biodiversity benefits of locations/plants/trees present within Queen's - testimonial from Queen's Gardeners (April to September 2023) <p>Objective – Maintain Green Flag for the university main site. Renewal – February 2023.</p> <p>Objective – Enhance the biodiversity found within Queen's campus. Target:</p> <ul style="list-style-type: none"> • Two new biodiversity opportunities identified and implemented each academic year – Ashby hill wildlife meadow creation and implementation of biodiversity survey initiative – June 2023. <p>Objective – Enhance Pollinators and native species across campus. Targets:</p> <ul style="list-style-type: none"> • Maintain and uphold commitment to All Ireland Pollinator Plan - ongoing • 2020/21 - 21 trees planted across the campus; >80 Linear metres hedge and >320 plants placed within Riddel Hall. 2021/22 - 11 trees planted across campus; >30 linear metres hedge planted; 50 plants. 	<p>Estates Directorate</p>	<p>Identify opportunities for enabling staff & students to participate in biodiversity enhancement projects – 4 new opportunities academic year 2022/23.</p> <p>Work with the gardening team to highlight the biodiversity present onsite via 6 communication pieces that will be promoted via several avenues – social media, newsletters.</p> <p>Renew Green Flag application – February 2023</p> <p>Liase with the Gardening Team and Students' Union to establish key opportunities and involvement.</p> <p>Identify tree planting and pollinator opportunities throughout the campus.</p>	<p>Head of Sustainability</p> <p>Estates Manager (Environmental)</p> <p>Head Gardener</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	<p>Ongoing</p>	<p>A range of biodiversity hotspots have been created across the Estate as part of the wider Nurture and Grow programme - Lennoxvale Tree Nursery, Pharmacy Garden, Elms Village Allotment Garden, DKB Quad. Queen's university Belfast was a winner within the 2020 UK and Ireland Green Gown Awards. The formation of our next biodiversity hotspot includes the creation of a wildlife meadow at the Ashby Hill – October 2022.</p> <p>A range of yearly biodiversity events and new initiatives will take place during the 2022/23 academic year:</p> <ul style="list-style-type: none"> • Community clean-ups – November 2022 and March 2023. • Elms Allotment Workshops October 2022 and May 2023 <p>Green Flag and Green Heritage Award retained for the Lanyon Site. (Benchmark National Standard for public green spaces).</p> <p>Partners in the Million Trees for Belfast Initiative: 15 trees; >30 linear metres hedge; 50 plants.</p> <p>No Mow areas - set aside as part of commitment to Pollinator Plan - Ashby Hill (Chlorine Gardens), DKB Quad and Riddel Hall</p> <p>Biodiversity Action Plan published October 2021.</p>
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<p>Water and discharges</p>	<p>Objective - Increase efficiency of water use via the use of borewells, rainwater harvesting technologies, monitoring and other water efficient technologies.</p> <p>Objective – Fulfil legal requirements:</p> <ul style="list-style-type: none"> • Meet abstraction licence requirements for borewells at each location (as per licence). • Meet water quality standards set at by drinking water inspectorate at each borewell location - ongoing • Prevent pollution to local waterways – Compliance with Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010 • Comply with effluent consents as stipulated on licence requirements <p>Delivery of bund improvement/ gas conversion program at key locations</p> <ul style="list-style-type: none"> - Review all existing bunds and tanks by 30 September 2021 - Undertake improvements – by November 2022 	<p>Estates Directorate</p>	<p>Ensure necessary controls and monitoring are in place to ensure compliance.</p> <p>Monthly monitoring - borewell usage at each location - ongoing</p> <p>Monthly monitoring of water quality to comply with DWI requirements – ongoing as stipulated in licence</p> <p>Completion of ongoing program – Bund improvements and maintenance</p>	<p>Estates Manager (Environmental)</p> <p>Estates Manager Maintenance</p> <p>Estates Minor Works</p>	<p>Ongoing</p>	<p>Borewells at several sites across campus – David Kerr Building, Elms Accommodation, Malone Playing Fields and Medical Biology Centre – completed.</p> <p>Implementation of flow control devices, water metering and water efficient WCs and taps.</p> <p>Pilot meter scheme with NI Water to minimise water leaks from source – due for completion December 2023.</p> <p>Ongoing monitoring to comply with licencing requirements</p> <p>Ashby/DKB bund replacement - completed</p> <p>Program ongoing to update tanks and replace with gas where appropriate (under review in light of Net Zero commitment)</p>
<p>Community Involvement</p>	<p>Objective - Increase engagement and involvement of local residents with sustainability programmes, initiatives and events within Queen's.</p> <p>Target:</p> <ul style="list-style-type: none"> • Complete 3 community events during 2022/23 	<p>Estates Directorate</p>	<p>Identify opportunities to engage with the local community with the Grounds and Garden Team, Community Engagement and Handy Helpers (SU).</p>	<p>Head of Sustainability</p> <p>Estates Manager (Environmental)</p> <p>Head Gardener</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	<p>Ongoing</p>	<p>Continuing to work with San Souci Residential Association via the Lennoxvale Tree Nursery and then by assisting them with their Malone Road Trees Project and Elms Village Sapling Planting event.</p> <p>Community clean-ups – November 2022 and March 2023.</p> <p>Participants in the Belfast Million Trees program.</p> <p>Alley way transformation project - via Handy Helpers program.</p>
<p>Sustainable Procurement</p>	<p>Reduce emissions associated with Procurement</p> <p>Targets:</p> <ul style="list-style-type: none"> • Establishment of a baseline for procurement related emissions by July 2023. 	<p>Procurement Department Estates Directorate</p>	<p>Appointment of consultants to support development of bespoke net-zero carbon targets for QUB to cover scope 1, 2 and 3, carbon off-setting, climate change adaptation and associated costed action plan.</p>	<p>Head of Sustainability</p> <p>Estates Manager (Energy)</p> <p>Senior Procurement</p>	<p>Ongoing</p>	<p>Procurement of consultancy services is in process.</p> <p>Suppliers to the University are being directed to register with and utilise NETpositive (or equivalent), a free tool that will help suppliers to create a simple sustainability action plan for their business. Ongoing review of progress against action plans will be undertaken at contract management meetings.</p>

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	<p>Ensure Supply Chain Awareness of expected Sustainability standards Targets:</p> <ul style="list-style-type: none"> Inclusion of Supply Chain Code of Conduct within all contract requirements - ongoing 		<p>Review and report on data available to the University to baseline scope 3 inventory – October 2022. This will include staff/student travel data.</p> <p>Creation of a supply chain stakeholder map for scope 3 hotspots that will be included in Queen’s Carbon Reduction Plan – November 2022.</p> <p>Complete a review of and report on the most impactful actions currently being undertaken on Scope 3 by other organisations in the UK – November 2022.</p> <p>Creation of a costed action plan including identifying supply chain hotspots and actions to support supply chain to reduce emissions – December 2022.</p> <p>Development of action plan to support delivery of the Sustainable Food Policy – September 2022.</p>	<p>Manager (Sustainable) Head of Campus Food and Drink</p>		<p>A Sustainable Food Policy and Sustainable Print Policy have been established - includes key sustainability procurement actions – report to senior management.</p> <p>Plastic Working Group has been established and a key theme which is being addressed within the working group is procurement.</p> <p>Procurement Department has drawn together various strands of responsible procurement into an overarching Supply Chain Code of Conduct which is applicable to all suppliers and links directly to the United Nations Sustainable Development Goals which sets out a blueprint to achieve a better and more sustainable future for all – published online and supplied to all significant suppliers.</p>
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