



Environmental Sustainability Action Plan

2020 – 2023

Approval Page

Version	Governance Group	Date Approved
1.0	Senior Executive Team (SET)	23 October 2020

Foreword

We are aware that current and emerging environmental trends and challenges affect all aspects of our operation. In response to these risks, we are actively exploring opportunities and implementing initiatives that will continue to enhance our resilience to these environmental risks and challenges.

Our environmental sustainability action plan (2020 - 2023) was developed as part of our immediate response to these global environmental risks and commitment to embed good environmental practices across all areas of our operation. Specifically, our six-year 30% carbon reduction target against our 2018/19 baseline is our immediate response to the global risks associated with climate change.

Our long-term environmental priorities are to continue to improve our environmental performance and play an active role in supporting the delivery of the United Nations Sustainable Development Goals (UN SDGs). We will also continue to engage with all relevant stakeholders and like-minded organisations to make our planet a better place to live.

We are a global university with students and staff from over 160 countries. The delivery of our environmental sustainability action plan will be aligned with our 2030 Strategy and our Vision to open the doors of opportunity by combining our world-leading strengths in both education and research.

Our corporate social responsibility priorities and environmental sustainability objectives will continue to underpin the way we deliver our teaching, our research, our collaborations, partnerships, other activities, as well as how we engage with our stakeholders and add value to our communities.



Professor Colin Bailey
President and Principal

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Abbreviation and Acronyms

Building Management System	BMS
Building Research Establishment Environmental and Assessment Method	BREEAM
Business as Usual	BAU
Carbon	CO ₂ e
Continue Professional Development	CPD
Corporate Social Responsibility	CSR
Display Energy Certificate	DEC
Environmental Management System	EMS
Environmental Sustainability Action Plan	ESAP
Estates Strategy Board	ESB
Full-Time Equivalent	FTE
Institute of Environmental Management and Assessment	IEMA
Kaplan International College London	KICL
Key Performance Indicator	KPI
Laboratory Efficiency Assessment Framework	LEAF
Low-Emission-Vehicle	LEV
Queen Mary, University of London	Queen Mary
Queen Mary E-learning Platform	QMPlus
Reduced Emission Scenario	RES
Salix Energy Efficiency Loan	SEEL
Senior Executive Team	SET
Service Level Agreement	SLA
Sustainable Development Goals	SDGs
Sustainability Committee	SC
Times Higher Education	THE
Ultra-Low-Emission Vehicle	ULEV
United Nations	UN
Value at Stake	VAS
Vice Principal	VP

Overview

Queen Mary University of London (Queen Mary) is a member of the Russell Group and one of the UK's leading research-focused higher education institutions. We provide higher education to more than 27,000 students and have more than 4,600 staff. With over 160 nationalities represented on our campuses, we offer our students a stimulating, supportive, high-quality learning experience through our world-leading education and research, and we have a strong vision, mission and values (set out in our Strategy 2030) focused on “opening the doors of opportunity” and being the most inclusive research-intensive university in the world by 2030.

Our 2020 – 2023 Environmental Sustainability Action Plan (ESAP) was developed as an immediate response to the current and emerging environmental risks and challenges, and is aligned with the UK's 2050 net zero carbon target and de-carbonisation priority. We know we need to do more, and through this action plan, we will establish strong foundations for the development of a longer-term, more ambitious strategy and plan. We will engage staff and students across the institution in the development of this longer-term strategy over the next 2 to 3 years.

As a higher education institution, we have a key role in supporting the delivery of the United Nations Sustainable Development Goals (UN SDGs). The SDGs are a set of 17 goals aimed at transforming the world by 2030 (see Figure 1). We will continue to actively embed the fundamentals of the UN SDGs into our teaching, research, our partnerships and all aspects of our operations. In addition, these goals will be integrated into our global and public engagement, as well as our entrepreneurial priorities.

Figure 1: The United Nation's Sustainable Development Goals (UN SDGs)



Governance: Roles and Responsibilities

All senior leaders across Queen Mary are responsible for delivering our Environmental Sustainability policy within their areas of control. Queen Mary's Sustainability Committee (SC) will continue to be responsible for the assurance of our environmental sustainability performance and regulatory compliance and for monitoring performance against its ESAP. This committee meets at least four times every academic year. The SC reports to the Estates Strategy Board (ESB) and the Senior Executive Team (SET).

We are committed to attain and maintain ISO 14001:2015 Environmental Management System (EMS) certification within the next two years. Our EMS will cover all our operations across our UK campuses. We will use our ISO 14001:2015 to provide environmental compliance assurance, deliver our environmental objectives, optimise all relevant environmental opportunities and enhance our resilience to current and emerging environmental challenges.

Progress against our Environmental Policy and our ESAP will be reported to the SC and relevant actions escalated to our Estates Strategy Board (ESB) and Senior Executive Team (SET). Council and other stakeholders will be kept informed of progress through an annual environmental sustainability reports, and updates throughout the year as required.

The Vice Principal, Policy and Strategic Partnerships, (a member of our Senior Executive Team) provides oversight of our environmental sustainability delivery approach and is the Chair of the Sustainability Committee. The Vice Chair is the Director of Estates, Facilities and Capital Development

We will monitor our progress towards embedding good environmental practices across all areas of our operations as well as our commitment to continue to improve our environmental performance.

Climate Change and Carbon Footprint

Our carbon footprint (CO₂e) is represented by the emissions associated with the energy and water used across our UK campuses, fuel used by our vehicles and business travel¹. A brief overview of our carbon footprint is detailed below:

¹ Distances our Staff and Researchers travel to carry out academic and operational responsibilities (excluding those via Oyster Cards)

Scope 1 (Directly controlled emissions)

- The GHG (greenhouse gas) emissions from the fossil fuel used to heat the buildings across our campuses.
- The GHG emissions associated with the fuel (petrol and diesel) used by our own vehicles.

Scope 2 (Emissions from grid electricity)

- The GHG emissions associated with grid electricity we buy and use across our estates.

Scope 3 (Indirect emissions)

- The GHG emissions associated with our business travel.
- The GHG emissions associated with the water used across our campuses.

We have historically actively implemented energy efficiency initiatives across our campuses. The 15-year 34% carbon reduction target we adopted against the carbon emissions associated with the electricity and gas used across estates during the 2005/06 academic was one of such strategic environmental commitments.

During the 2005/06 academic year, we used 32,830 MWh of electricity and 34,796 MWh of gas, which accounted for the emission of 23,058 tCO₂e. We are pleased to report the carbon footprint associated with the electricity and gas used across our UK campuses reduced from 23,058 tCO₂e in 2005/06 to 13,971 tCO₂e (39% reduction) at the end of the 2019/20 academic year.

Our electricity consumption increased by 1% from 32,830 MWh in 2005/06 to 33,995 MWh during the 2019/20 academic year, while the gas we used during the 2019/20 academic year was 11% lower than our 2005/06 consumption (reduced from 34,796 MWh to 30,818 MWh). Comparatively, this is an achievement, taking into account that our student numbers, research activities and the size of our estate have all increased significantly over the past 15 years.

The main factors that underpinned our carbon reduction performance over the past 15 years are:

- Our investment in energy efficiency projects
- Reduction in GHG conversion factors
 - 51% reduction in the electricity GHG conversion factor
 - 6% reduction in the gas GHG conversion factor.

Our six-year 30% carbon reduction target against our 2018/19 carbon footprint (26,371 tCO₂e) is one of our immediate responses to the risks posed to the planet and our lives due to human-induced climate change. We will look to deliver a net-zero carbon footprint by 2050 at the latest

and if possible, much sooner than that. This target will be embedded into our longer-term, more ambitious strategy that we will develop over the next 3 years.



Environmental Sustainability Action Plan (ESAP)



The details of our approach to environmental sustainability are set out in our action plan detailed in Appendix 1.



The ESAP provides the framework against which we will monitor and manage all significant areas in which we interact with the environment and improve our environmental performance over the next three years.


Appendices




Appendix 1: Environmental Sustainability Action Plan




Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
<p>1. Managing Carbon</p>  	<p>Context:</p> <p>Our carbon footprint (CO₂e) is represented by the emissions associated with the energy and water used across our UK campuses, fuel used by our vehicles and business travel. During the 2018/19 academic year, we emitted 25,942 tCO₂e. A breakdown of our 2018/19 carbon footprint show that our business travel (31.9 Million km) accounted for 38.2% of our carbon footprint and 61.8% was from the energy and water usage used across our UK campuses.</p> <p>Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • Adopted a six-year 30% carbon reduction target against our 2018/19 baseline • Climate change risks will be included in our risk registers. • We will continue to invest in initiatives that reduce our carbon footprint. • We will actively encourage all staff, students, visitors and major partners to reduce their carbon footprint. • We will share, promote and showcase research and innovation on the benefits of responding to the risks and opportunities associated with climate change. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • It is projected that we would require approximately £8 Million investment on energy and water efficiency as well as sustainable travel to achieve our 30% six-year carbon reduction target. <p>KPIs:</p> <ul style="list-style-type: none"> • Annual percentage reduction in tCO₂e emitted across UK's campuses • Annual percentage reduction in the Carbon tCO₂e we emit per student • Annual percentage reduction in our Scope 1: tCO₂e • Annual percentage reduction in our Scope 2: tCO₂e • Annual percentage reduction in our Scope 3: tCO₂e



Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>Long-term Ambition:</p> <ul style="list-style-type: none"> To achieve net-zero carbon by 2050 at the latest and sooner if we can. We will develop a net-zero carbon reduction target on or before July 2025. 	
<p>2. Building Energy Efficiency</p>  	<p>Context:</p> <p>The energy used across our UK campuses accounts for 61.8% of our 2018/19 carbon footprint. Only 33% of our 55 qualifying buildings currently achieve Display Energy Certificate (DEC) scores of C and above, which implies that there are opportunities to improve the energy performances of our buildings. Appendix 2 details some of the energy efficiency projects and initiatives that were recently completed and commissioned across our campuses. These projects were estimated to reduce our electricity and gas use by 6,907,417 kWh and 1,710,999 kWh, respectively.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We have secured a £2.46 million Salix energy efficiency loan to reduce the energy used at our Mile End and Whitechapel campuses (see Appendix 3) We signed a four-year building management system (BMS) contract of £1.5 million for the purpose of improving energy efficiency across our UK campuses. We will actively identify and implement initiatives that would improve our 	<p>Resources Required:</p> <ul style="list-style-type: none"> Circa of £7.6 Million required to implement energy efficiency measures across our UK campuses Building energy efficiency budget line to be included in all major refurbishment and new-builds projects Building energy efficiency budget line to be included in annual estates maintenance capital funds <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in kWh of electricity used across our UK campuses Annual percentage reduction in kWh of gas used cross our UK campuses Annual percentage reduction in kWh /


Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>DEC scores.</p> <ul style="list-style-type: none"> We will continue to promote good energy practices across all our campuses To reduce the energy used across our UK campuses by 30% by July 2025 against our 2018/19 baseline, which is likely to require further investment of the order of £3.6m. <p>Long-term Ambition:</p> <ul style="list-style-type: none"> To move to green electricity tariff. 	<p>Litres of heating oil used across our UK campuses</p> <ul style="list-style-type: none"> Annual average percentage improvement in the DEC scores of qualifying buildings across our UK campuses Annual percentage increase in renewable energy generated across our UK campuses Annual proportion of green electricity tariff we use
<p>3. Travel and Transportation</p>  	<p>Context:</p> <p>We are a university with global reach, and over 160 nationalities on campus. We recognise the impact that the travel of students and staff has on the environment. Our 2018/19 business travel of 31.93 Million km and the 2,385 litres of fuel we used in our own vehicles account for 9,919 tCO₂e of our 2018/19 carbon footprint (38.4%). Long-haul flights made up at least 87% of our business travel footprint.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> Apply the lessons learned from remote working during the COVID-19 pandemic lockdown and restrictions to encourage staff to explore more 	<p>Resources Required:</p> <ul style="list-style-type: none"> Investment in remote conferencing and communication technologies to support the delivery of our six-year, 30% carbon reduction target <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in litres of fuel used in Queen Mary's vehicles Annual percentage reduction (km / miles) of Domestic flights




Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>sustainable communication and travel options and where possible to reduce air travel.</p> <ul style="list-style-type: none"> • Continue to promote and share evidence of the good practice of sustainable transport (cycling, walking and public transport) as well as the public health and environmental impacts of emissions associated with travel emissions. • Appendix 4 has been developed as part of our commitment to capture in-depth data of our business. These data will be used to identify our top fliers and implement incentives/approaches to reduce our business travel. • Actively engage with individuals, departments and research groups whose research, training, consultancy and other associated activities entails long-haul international flights • Implement a “no vehicle idling” policy across all our UK campuses. • Develop proposals to incentivise use of “greener” vehicles on campus (e.g. installation of EV charging points, possible parking levy). • Subject to available funds, increase the infrastructure and facilities across our campuses that support cycling and sustainable travel. • Progressively reduce our business travel in line with our six-year carbon reduction target. 	<ul style="list-style-type: none"> • Annual percentage reduction (km / miles) of Short-haul flights • Annual percentage reduction (km / miles) of Long-haul flights • Annual percentage reduction (km / miles) of International flights • Annual percentage reduction (km / miles) of non-flight travel • Annual proportion of bicycle storage per students and staff



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<p>4. Water Management and Efficiency</p>   	<p>Context:</p> <p>We used 339,181 m³ of water across our UK campuses during the 2018/19 academic year. This volume of water contributed 117 tCO₂e (0.4%) of our 2018/19 carbon footprint. To put our water usage into context, we used an average of 17.6 m³ of water per student.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> Invest around £200,000 on relevant water efficiency measures across our UK campuses to reduce the water we use by 30% by July 2025 against our 2018/19 baseline. Continue to promote the benefits of water efficiency to all staff and students. Integrate water efficiency into all our new-builds and refurbishment projects. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> Explore integrating rain/grey water harvesting into all new-builds and refurbishment projects. Progressively reduce the volume of water we use per total number of staff and students. 	<p>Resources Required:</p> <ul style="list-style-type: none"> Investment of circa of £50,000 per annum on water efficiency between the 2020/21 and 2024/25 academic years Dedicate a budget line into all new-builds and major refurbishment projects to support water efficiency <p>KPIs:</p> <ul style="list-style-type: none"> Annual percentage reduction in water used (m³) across our UK campuses Annual percentage reduction in water used across our UK campuses per student


Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
<p>5. Recycling and Waste Management</p>   	<p>Context:</p> <p>We generated 1,588 tonnes of general wastes waste across our three main campuses during the 2018/19 academic year, costing us a total of £242,538. Recyclable materials represented 33% of the total general wastes collected across our main campuses.</p> <p>We have some good examples of waste reduction: we use the Too-Good-to-go app to reduce food waste from our catering outlets; the Students Union have set up the ReUse scheme to ensure items used by departing students are donated for reuse by incoming students, and have organised leftover food donations to the Hackney Winter Shelter. There is currently a collaboration between QMSU and the Roman Road Trust to explore and reduce use of single-use plastics on Roman Road.</p> <p>Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to ensure that so far as possible general waste generated from our main UK campuses is not disposed on landfill • We will continue to implement measures to increase the proportion of recyclable materials collected from our main UK campuses. • We will continue to promote the economic and environmental benefits of minimising waste and appropriately segregating recyclable materials from general waste across all our campuses. 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Fill the current vacant position of the Waste Manager <p>KPIs:</p> <ul style="list-style-type: none"> • Annual percentage of general waste disposed on landfill • Annual percentage increase in recyclable materials collected from our main UK campuses • Annual percentage reduction in food waste • Annual kg of materials donated (ReUse events) • Annual total number of used books donated


Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>Long-term Ambition:</p> <ul style="list-style-type: none"> We will reduce the total annual waste generated across our UK campuses Maintain our no waste to landfill status. We will recycle at least 50% of the general waste generated across our main UK campuses by 2030. 	
<p>6. Construction: Refurbishment and New-builds</p>  	<p>Context: The materials and processes associated with construction and refurbishment projects have the potential to adversely impact on our local environment. However, embedding good environmental practices into construction, new build and refurbishment projects could positively contribute to the delivery of good environmental outcomes.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We aim to achieve 'Excellent' and 'Very Good' ratings from the Building Research Establishment Environmental Assessment Method (BREEAM) for all our major new builds and refurbishment projects respectively. We will monitor the contribution of all prospective refurbishment projects towards our target of achieving 30% carbon reduction over six years. Improve the DEC scores of our existing buildings during refurbishment <p>Our Long-term Ambition:</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> Dedicate an additional budget line to ensure that all our new builds and refurbishment projects support energy efficiency commitment <p>KPIs:</p> <ul style="list-style-type: none"> Annual proportion of major refurbishment projects that attain BREEAM Very Good Annual proportion of major new-builds that attain BREEAM Excellent

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<ul style="list-style-type: none"> We aim to integrate innovative building energy efficiency technologies into all our new builds and refurbishment projects. 	
<p>7. Sustainable Procurement</p> 	<p>Context: The goods and services we procure have varying level of impacts on the environment. Therefore, integrating environmental and corporate social responsibility (CSR) specifications into relevant aspects of our procurement and commissioning processes will influence our supply chain, suppliers, and contractors to reduce the environmental impacts of their operations.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We will develop our sustainable procurement guide. This guide will be used to embed the principles of sustainable development and CSR into all relevant aspects of our procurement processes. We will include relevant environmental sustainability and CSR specifications in our procurement and commissioning processes. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> We aim to have environmental sustainability and CSR specifications performance indicators in all the service level agreements (SLAs) we have with our major contractors. 	<p>Resources Required:</p> <ul style="list-style-type: none"> See resources required for environmental management (Aspect: 12) <p>KPIs:</p> <ul style="list-style-type: none"> Proportion of major current suppliers / contractors with certified EMS Percentage of major contracts that sustainability have been included as one of the SLAs Proportion of major contracts in which environmental specifications were included Proportion of major contracts in which CSR specifications were included





Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
<p>8. Sustainable food and catering</p>   	<p>Context:</p> <p>Embedding good environmental practices into the way we source, prepare and process food has the potential to enhance our environmental performance and reduce the environment impacts of the food we serve across our campuses. Further benefits associated with sustainable food and catering are waste minimisation and water and energy reduction.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to implement initiatives that reduces food waste from our catering outlets. • We will continue to ensure that all our major catering and food suppliers have a certified EMS. • We will continue to exclude fish species classified as “at risk” by the Marine Conservation Society and only accept fish from sustainable sources. • We will continue to use food and services from responsible and ethical sources • We will continue to increase the proportion of meals rich in fruit, vegetables, pulses, and nuts, while reducing foods of animal origin, because livestock farming is one of the significant contributors to climate change 	<p>Resources Required:</p> <ul style="list-style-type: none"> • Dedicated budget to attain and maintain fair trade certification <p>KPIs:</p> <ul style="list-style-type: none"> • Proportion of catering outlets that offer vegetarian and vegan meal options • Proportion of catering outlets, which offer access to free water • Annual percentage reduction in food wastes • Compliance with relevant ethical food and catering standards • Proportion of major suppliers with certified EMS






Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> We aim to significantly increase our sustainable food and menu offerings. We aim to significantly reduce the energy used to process food across our catering outlets. 	
<p>9. Biodiversity and ecological enhancement</p>  	<p>Context:</p> <p>Biodiversity maintains a functional and beautiful environment as well as resource for food, shelter, clothing and other materials. Our economy relies on biodiversity since it provides renewable economic resources and ecosystem services, medical and scientific benefits, and is priceless in term of cultural and aesthetic values. In response to the fact that over 58% of global species that have been lost and approximately 30% of UK species becoming extinct since 1970, we actively promote the benefits of biodiversity conservation and enhancement.</p> <p>We have a medicinal and sensory garden at our Mile End campus, as well as 19 allotments tended by staff and students. Students also contribute significantly through volunteering to sustainability activities e.g. canal clean-up, and local wildflower and bulb planting.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We will continue to engage with and support the London Borough of Tower Hamlets commitment to enhance biodiversity across the Borough (see the Tower Hamlets Local Biodiversity Action Plan 2019-24) alongside local 	<p>Resources Required:</p> <ul style="list-style-type: none"> Dedicated budget line into all major refurbishment and new build projects to support biodiversity enhancement See resources required for environmental management (Aspect: 12) <p>KPIs:</p> <ul style="list-style-type: none"> Proportion of major new build projects in which biodiversity enhancement / conservation have been integrated into the project design and implementation. Upkeep and continuous access to the medicinal and sensory gardens. Designated allotment (for educational purposes) to our Nursery. Annual number of clean-up events of the Regent Canal.




Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>partners.</p> <ul style="list-style-type: none"> Over the next five-years, we will aim to increase the number of native species such as Black Poplar across our Mile End Campus We will continue to improve the biodiversity of the Regent's Canal. We will continue to support the Regent's Canal clean-up events coordinated by the Students Union. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> We will continue to promote the benefits of biodiversity, ecological conservation and enhancement and look for opportunities/projects across all our campuses, working with students, staff and our local communities. We will continue to share research outputs on biodiversity and ecological enhancement. 	
<p>10. Embedding good environmental practices</p> 	<p>Context:</p> <p>We are committed to embedding good environmental practices and the principles of sustainable development into all aspects of our operations.</p> <p>Various aspects of environmental sustainability, sustainable development, public health and the environment, environmental law, environmental engineering and corporate social responsibility are offered across our three faculties (Humanities and Social Sciences, Science and Engineering, and Medicine and Dentistry).</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> Funds to maintain IEMA corporate membership Funds to maintain EcoCampus membership See resources required for environmental management (Aspect: 12) <p>KPIs:</p>

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>We are also currently a Corporate Member of the Institute of Environmental Management and Assessment (IEMA). Our membership of IEMA is part of our commitment to collaborate with like-minded organisations engaged in making their operations much more sustainable. We are also using our current membership to embed good environmental practices across our operations and improve our resilience.</p> <p>One of the actions that we have implemented to support the delivery of the above objective, is that we are currently delivering a certified CPD course on environmental sustainability skills for the workforce to all interested staff.</p> <p>Our involvement in the Laboratory Efficiency Assessment Framework (LEAF) is one of our responses to reducing the environmental risks associated with laboratory activities across our campuses. We are currently using the LEAF tool to improve the environmental performances of our laboratories as well as assist users to appropriately explore opportunities to reduce the environmental impacts of laboratory activities.</p> <p>Our participation in the EcoCampus programme is currently being used to offer all our students the opportunity to access an online course designed to provide insight into sustainable development and how they can embed the principles of good environmental practices into all activities that they are involved in. This</p>	<ul style="list-style-type: none"> • Annual number/value of on-going research projects in the area of environmental sustainability • Annual number of research outputs in the area of environmental sustainability • Annual number of environmental engagement and awareness events • Annual number of coordinated national / international environmental campaigns • Greater recognition and promotion of our excellent environmental research on our website. • Proportion of courses / schools that environmental sustainability has been integrated into the curriculum. • Annual number of students that have completed and passed the certified CPD sustainable development course • Annual number of staff that completed the CPD certified course on environmental sustainability skills for the workforce

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>course is one of our initiatives to embed sustainable development into our academic activities and to raise awareness of the benefits of good environmental practices.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> • We will continue to include an overview of the principles and application of good environmental management practices into our staff welcome events. These sessions will be used to encourage all new colleagues to join our environmental sustainability journey (see Appendix 5). • We will continue to recruit and support environmental sustainability champions across all operational areas. • We will continue to promote the benefits of environmental sustainability and climate change responses across all relevant media, such as via our website and events. • We will continue to enhance the employability of our students in the environmental sustainability sector. • We will promote more actively our research and academic activities in the areas of environmental sustainability and UN SDGs. <p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> • We aim to ensure that sustainability is a key feature of working and studying at Queen Mary, integrated into the curriculum (through the forthcoming 	

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>Curriculum Review), our academic activities and our ways of working.</p> <ul style="list-style-type: none"> We aim to integrate the principles of sustainable development into all aspects of our operations. 	
<p>11. Civic University, and UN SDGs</p>    	<p>Context:</p> <p>We are a socially responsible university. Our ethos and values underpin the way we engage with all relevant stakeholders and partners, and our role in our local communities. We are proud to have been a London Living Wage employer since 2006, and a founding partner of the Living Wage Foundation.</p> <p>We have a dedicated Centre for Public Engagement, which helps to facilitate staff and students engage with the public in important conversations about our education and research, including sustainability. We have an Athena Swan Silver Award in recognition of our commitment to advancing women’s careers in Science and Medicine. We are a founding partner in the Civic University Network, and will be developing our civic university agreement with our local area over the next year.</p> <p>Our Immediate Objectives / Actions:</p> <p>The principles of CSR will continue to be embedded into all aspects of our operations and we will continue to use the Sustainability Leadership Scorecard to monitor our performance against the UN SDGs.</p> <p>Our Long-term Ambition:</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> Maintain our membership of the Alliance for Sustainability Leadership in Education (EAUC) <p>KPIs:</p> <ul style="list-style-type: none"> Monitor our performance against the UN SDGs Benchmark our performance based on the EAUC’s sustainability leadership scorecard

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<ul style="list-style-type: none"> We aim to promote the benefits of CSR and UN SDGs to all our relevant partners and stakeholders. We will share our research outputs in the areas of CSR and UN SDGs. 	
<p>12. Environmental Management</p>    	<p>Context:</p> <p>We are aware of the benefits of monitoring, managing, and reporting all significant areas in which we interact with the environment will be an integral aspect of our environmental sustainability strategy. As part of our environmental priorities, we will continue to improve our environmental performance and comply with all relevant environmental regulations.</p> <p>Our Immediate Objectives / Actions:</p> <ul style="list-style-type: none"> We will, over the next two years, attain ISO 14001:2015 EMS certification so that we have a structured approach to manage our environmental performance. We will use our environmental auditing programme to provide assurance of our environmental compliance and monitor our environmental performance. We will continue to periodically review and check that our environmental management system is fit for purpose. We will periodically review our environmental objectives and targets. 	<p>Resources Required:</p> <ul style="list-style-type: none"> Maintain our membership of the EcoCampus programme Fill the current two vacant positions within the Sustainability Team by July 2021 <p>KPIs:</p> <ul style="list-style-type: none"> Up to date environmental risk register Up to date environmental legal register Up to date environmental impact and aspect registers Number of completed environmental audit with zero non-compliance Published annual environmental performance reports and Annual sustainability report

Areas	Immediate Objectives and Long-term Ambition	Resources Required & KPIs
	<p>Our Long-term Ambition:</p> <ul style="list-style-type: none"> We aim to maintain ISO 14001:2015 EMS certification. We aim to continue to improve our environmental performance and exceed regulatory compliance requirements where appropriate. 	
<p>13. Ethical investment and fossil fuel divestment</p>   	<p>Context:</p> <p>Queen Mary agreed and published an Ethical Investment Policy in December 2017 stating that we will not directly invest in companies whose business activity in armaments exceeds 25%, or companies, which derive over 33% of its turnover from fossil fuel industries. We also do not invest in the tobacco industry. Our financial advisers have been instructed accordingly.</p>	<p>Resources Required:</p> <ul style="list-style-type: none"> None <p>KPIs:</p> <ul style="list-style-type: none"> Annual update from the Finance and Investment Committee on our investments Compliance with our ethical investment policy.

Appendix 2: Recently Completed Energy Efficiency Projects

Project Title / Description	Campus	Projected Savings / Increase (-)	
		Electricity (kWh)	Gas (kWh)
Graduate School Combine Heat and Power (CHP). Cogeneration Plant ²	Mile End	621,601	-2,683,245
Arts 2 - Ground Source Heat Pump (GSHP)	Mile End	34,533	133,200
Francis Bancroft Building Refurbishment	Mile End	484,039	181,680
Abernethy Building Refurbishment	Whitechapel	80,330	79,639
Maynard House BMS and Lighting Upgrade	Mile End	98,752	34,919
Varey House BMS and Lighting Upgrade	Mile End	95,500	34,919
Computer Science Building Management System (BMS)	Mile End	99,972	124,740
Richard Feilden House BMS and Lighting Upgrade	Mile End	41,977	34,919
Lindop House BMS and Lighting Upgrade	Mile End	35,726	52,113
Pooley House BMS and Lighting Upgrade	Mile End	48,772	317,998
Beaumont Court BMS and Lighting Upgrade	Mile End	33,949	79,665
Drapers Hall & Qmotion Lighting Upgrade	Mile End	78,262	NA
Geography Pipework Insulation	Mile End	NA	53,626
Charterhouse Building Management System (BMS) Upgrade	Charterhouse	1,612,604	6,904,126
Dawson Hall Combine Heat and Power (CHP). Cogeneration Plant ²	Charterhouse	1,770,700	-1,818,650
John Vane Combine Heat and Power (CHP) Cogeneration Plant ²	Charterhouse	1,770,700	-1,818,650
Total Savings (kWh)		6,907,417	1,710,999

² Installation have not been commissioned

Appendix 3: Secured and Funded Energy Efficiency Projects (£2,465,509)

Project Title / Description	Campus	Project Cost (£)	Projected Savings	
			Electricity (kWh)	Gas (kWh)
Joseph Priestley: Plate Heat Exchanger	Mile End	£397,907	105,780	1,763,680
BMS Upgrade: Whitechapel Campus	Whitechapel	£602,946	727,382	1,358,785
BMS Upgrade: Arts Two Building	Mile End	£32,573	34,526	39,742
BMS Upgrade: Computer Science Building	Mile End	£16,629	56,325	100,627
BMS Upgrade: Engineering Building	Mile End	£83,025	201,279	400,434
BMS Upgrade: G. E. Fogg Building	Mile End	£48,783	164,607	37,477
BMS Upgrade: G. O. Jones Building	Mile End	£8,629	31,010	21,069
BMS Upgrade: Peoples Palace Building	Mile End	£105,017	85,970	435,906
Lighting Upgrade and Controls: Whitechapel Campus	Whitechapel	£1,170,000	914,929	NA
Total		£2,465,509	2,321,808	4,157,720

Appendix 4: Business Travel Template

1	Date Travel Booked	DD/MM/YYYY
2	Date of Travel	DD/MM/YYYY
3	Date of Return	DD/MM/YYYY
4	Travel Description	
5	Number of Passengers	
6	Mode of Travel	Train/EuroStar/EuroRail/Flight/Road/Coach/Taxi
7	Flight (If No go to 13)	Yes/No
8	Flight (Domestic)	Yes/No
9	Flight (Economy)	Yes/No
10	Flight (Premium Economy)	Yes/No
11	Flight (Business)	Yes/No
12	Return	Yes/No
13	Start / From	
14	Through / Via	
15	To / Destination	
16	Comment	

Appendix 5: Environmental Sustainability Staff Induction Template



Staff Environmental Sustainability Induction

You are welcome to Queen Mary, University of London (Queen Mary). We are aware that current and emerging environmental changes and risks affect all aspects of our operations. In responses to these risks, we are actively exploring opportunities and implementing initiatives that enhances our resilience to these environmental risks and challenges.

In conjunction with the above statement, we are committed to embed good environmental practices into all aspects of our operation and we are inviting you to be involved in our journey to significantly reduce our environmental impact.

Aspects	Further Information	Action	Date Completed
Environmental Policy	Queen Mary's environmental sustainability policy sets out its environmental objectives and commitment to continue to reduce its environmental impacts.	Electronic version of Queen Mary's environmental sustainability policy sent to new employee.	
Environmental sustainability management plan	Queen Mary's environmental sustainability management plan is the framework on which it delivers its environmental objectives and commitment	Electronic version of Queen Mary's environmental sustainability management plan sent to new employee.	

Aspects	Further Information	Action	Date Completed
	to continue to comply with all relevant regulations.		
GreenMary Programme	The GreenMary is a structured programme developed to support staff groups to embed good environmental practices across their area of work.	New employee is invited to join an existing GreenMary Team or to contact the Sustainability Team at sustainability@qmul.ac.uk for support to set-up a GreenMary Team.	
Environmental sustainability champions	We encourage all staff members to take action to reduce their personal as well as Queen Mary's environmental impacts.	New employee is informed to contact the Sustainability Team at sustainability@qmul.ac.uk for further information and support.	
Good energy practices	We expect all staff to observe good energy practices as part of our commitment to reduce our carbon footprint and our response to climate change emergency.	New employee is informed of some good energy practices: <ul style="list-style-type: none"> • To switch-off lights if they are the last to leave the office. • To switch-off lights in empty offices • To switch-off stand-alone air. conditioning unit in empty offices • To switch-off monitors whenever not required. • Where applicable to use valves on heating radiators to adjust room temperatures. • To ensure kettles are filled with the 	

Aspects	Further Information	Action	Date Completed
		quantity of water required.	
Single use plastics and water bottles	As part of our commitment to reduce single use plastic and water bottles, we have installed water dispensers and fountains across our campuses.	New employee should be made aware of the locations of all water dispensers and fountains as well as encouraged to use these rather than single use water bottles.	
Waste reduction	Queen Mary's catering outlets offer 15% discount for all hot beverages bought with a keep-cup.	New employee should be informed of this discount initiative and encouraged to use their keep-cup whenever they visit any Queen Mary's catering outlets.	
Recycling	Queen Mary is committed to segregating all recyclable materials from general wastes.	New employee should be informed of all materials that should be segregated as recyclable materials as well as location of recyclable bins / storage receptacles.	
Department specific waste streams	Queen Mary is committed to comply with all relevant waste management regulations.	New employee should be informed of the appropriate procedure of handling, segregating, and storing all other waste streams.	

Environmental Sustainability Action Plan (ESAP)

Document Lead: Head of Sustainability

Document Owner: Vice Principal Policy and Strategic Partnerships

Email: sustainability@qmul.ac.uk

qmul.ac.uk