

Sustainability Report

2020–21

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Background

This Sustainability Report is written at a point of significant transition. The Library, along with the whole of our society, is emerging from the impacts of the Covid-19 pandemic. This has rendered many of the statistics anomalous and our forecasting less certain.

Meanwhile we have spent a significant amount of time reflecting on what sort of organisation we want to become, particularly in our relationships with our wider society and the natural world. This has led us to write our first Climate Action Plan, which takes a wider, more holistic view of how the Library will step up to the challenges of the Climate Emergency.

Throughout 2020/21 this thinking was facilitated by our Climate Crisis Internship which brought an invaluable fresh perspective to the process.

This Sustainability Report therefore looks back at the past year in the context of the old Carbon Management Plan and forward to the vision of the new [Climate Action Plan](#).

Figure 1: A new archive documentary drawing on material from the Moving Image, which looks for the roots of the climate crisis in Scotland's post-war history.

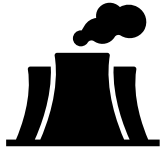


Living Proof



Director: Emily Munro | Countries of production: Scotland | Year: 2021 | Length: 98 min
Language: English | Age: 8+ years

Overview



75% Less GHG emissions compared to 2008/09
Target: 75% reduction against 2008/9 levels by 2030.



56% Less Energy used compared to 2008/09
Target: 40% reduction against 2008/09 levels by 2020



82% Less Water used compared to 2008/09
Target: 25% reduction against 2008/09 levels



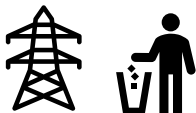
99% Less Fleet and business travel compared to 2008/09
Target: Not to exceed 2008/09 levels



94% Less Waste arisings compared to 2008/09
Target: 25% reduction against 2008/09 levels by 2020



96% Waste recycled
Target: 70% of all waste recycled by 2025



The remaining 4 tonnes of General Waste was incinerated for electricity production.

No waste was sent to landfill.

Climate Action Plan 2021-25

In 2010, the Library published its first Carbon Management Plan. In it, the Library set out targets to help contribute to Scotland's ambition to become a low-carbon nation. Over the subsequent decade the Library surpassed the original Scottish Government targets and by 2019/20 had achieved a 69.09 per cent GHG emissions reduction and a 50.76 per cent reduction in energy consumption, compared with its 2008/09 baseline.

The Library has made tremendous strides in improving our own sustainability and contributing towards Scotland's climate targets, however, in the context of the escalating climate crisis and the ramping up of Scotland's ambitions to tackle it, the Library needed to do more than re-badge its Carbon Management Plan. It needed a complete re-think of what the future it wants to be a part of looks like and how it is going to get there.

The Library developed its Climate Action Plan over It sets out a sustainability vision in response to the growing threats the climate crisis poses to every aspect of our lives and work. Whilst the actions detailed in the plan only take us to 2025, we have set out the vision that we want to achieve by 2045 at the latest. This includes the target of being net-zero.

We will become net-zero by 2045 at the latest.

In the short-term, the Library is aiming for a 72.5 per cent reduction in greenhouse gas emissions by 2025 from our 2008/09 baseline. Furthermore, we are aiming to recycle 70 per cent of our waste, reduce the amount we send to landfill to 5 per cent and fully decarbonise our fleet by 2025. We'll be working with partners and third parties to help bring down our indirect emissions and play a positive social role through our procurement decisions, all in the service of helping the Library reach net-zero.

We will mainstream sustainability into every aspect of our operations.

Our climate ambitions, however, go beyond our estate. Recognising our influential role in society, we are committed to promoting our resources to help improve climate literacy, empowering individuals and communities to respond to the climate crisis in their day-to-day lives. Through our public programming, events, and online engagement, the Library is in a strong position to help society take action against this existential threat. However, as well as promoting climate resources, we are also interested in collecting climate resources, and so we will continue our efforts to record and collect responses to the climate crisis. Our collections work in this area will include documenting the response to the climate crisis whilst also playing a major role in building knowledge, awareness, and resilience, thereby helping individuals and communities actively respond to our changing climate.

Report structure

This Sustainability Report reflects the structure of the Library's Climate Action Plan, which in turn is derived from the Climate Change (Scotland) Act 2009. The Act sets out three statutory duties that are required of Scottish public bodies:

To act in a way:

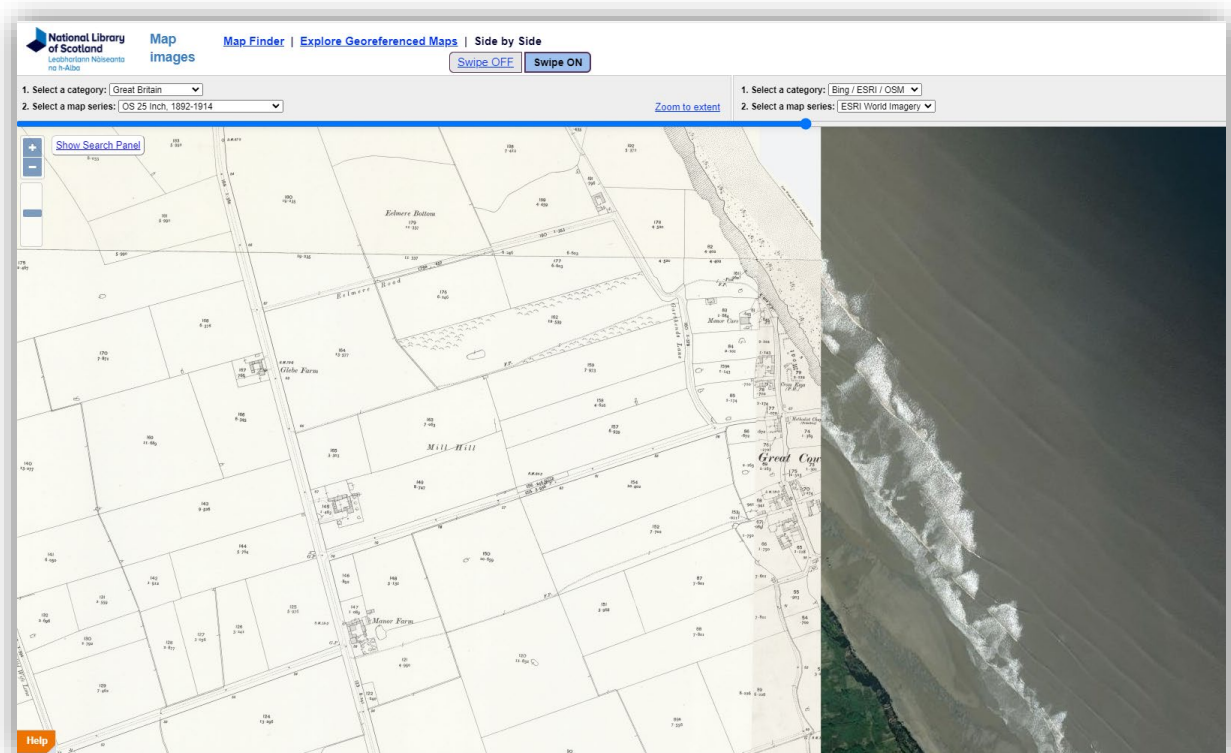
1. best calculated to contribute to the emissions reduction targets,
2. best calculated to contribute to the climate adaptation programme,
3. that it considers most sustainably.

Furthermore, public bodies are encouraged to go above and beyond, considering other ways they can positively contribute towards Scotland's climate change targets.

We have translated this into four areas of focus, which we call:

1. Mitigation
2. Adaption
3. Sustainable Development
4. Wider Influence

Figure 2: Costal erosion and sea level rise viewer. One of the resources available on the Maps – Researching Climate Change web site.



Mitigation

Mitigation refers to the actions we take to minimise the severity of climate change. This typically means reducing or eliminating the greenhouse gas (GHG) emissions that result from our operations. The Library set the scope of what it includes in its calculation of its GHG Emissions in 2008/09. It comprises:

Scope 1. Direct Emissions

- Gas
- Library Fleet

Scope 2. Indirect emissions from electricity

- Electricity

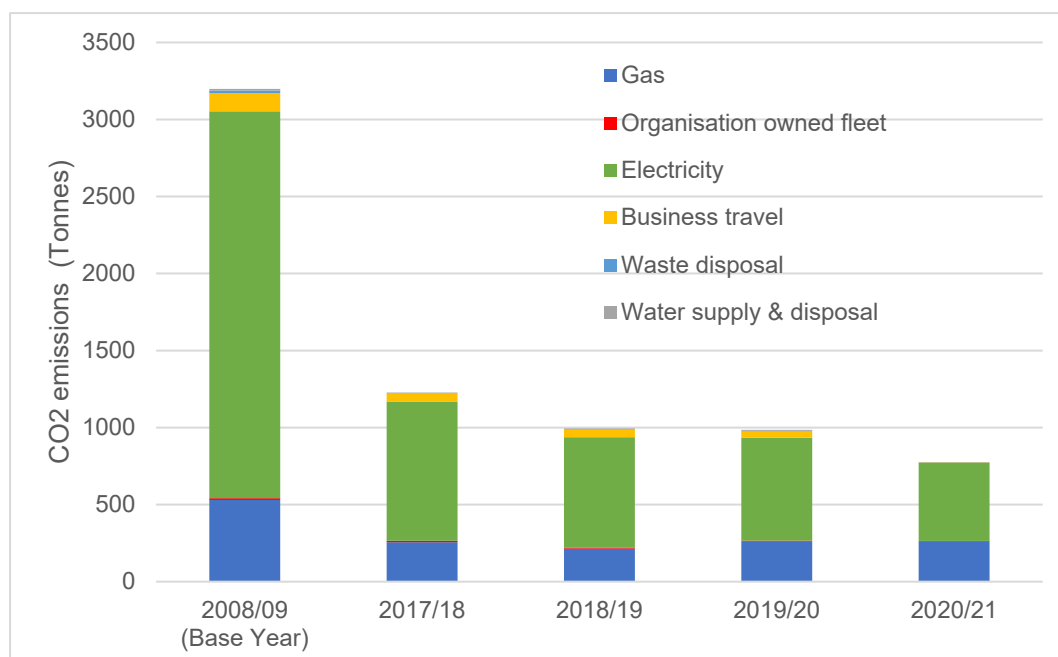
Scope 3. All other indirect emissions

- Waste
- Water
- Business Travel

Scope 4. Emissions from major Third Party Suppliers

Looking forward the Library aims to include indirect emissions from major third parties suppliers in its scope. The priority will be to account for emissions from third party IT cloud-based services that have replaced former on-site provision.

Chart 1: Green House Gas Emissions. (Data available in table format in Appendix 1).



The majority of the Library's emissions come from energy consumption. Even though our buildings were closed to the public for the majority of 2020/21 and most of our staff were working from home, our energy consumption only reduced by 11%. This is due to the fact that the majority of the Library's energy consumption is used to maintain the environmental conditions needed to preserve the National Collection.

This means that we must become much smarter at understanding and micromanaging environmental conditions and energy consumption together if we are to make significant future reductions.

During 2020/21 the Library:

- Continued to develop a system that brings its environmental and energy management tools together across the whole estate giving real time monitoring and control. We call it LEEP - the Library Environmental Energy Platform.
- We purchased two electric vehicles for the Library fleet as part of our drive to have an all-electric fleet by 2025.

Figure 3: LEEP Graphical interface.



- Carry out an air source heat pump pilot in 2021/22 with a view to reducing our gas consumption

- Upgrading a number of air handling units
- Installing a next generation of LED gallery lighting based around presence detection controls

Adaptation

Our world is already seeing massive disruptions caused by our changing climate. Whilst putting in place strategies to mitigate climate change, we need to prepare for the inevitable and unavoidable effects of the climate crisis that are already present and will continue to cause impact to our lives, our mental health, and local economies in the future.

Implementing strong adaptation measures is particularly relevant for the Library. Our collections and archives are vulnerable to changes in temperature, humidity, and climate, as well as being at risk from increased rainfall which threatens to overwhelm discharge systems which would have been adequate in the past.

During 2020/21 we:

- We continued to support a PhD collaboration with Heriot Watt University, Edinburgh and Qingdao University, China - 'Applying ANN technology to determine acceptable microclimate parameters for the National Library of Scotland's Collections to enable significant energy efficiency improvements.
- Increased the capacity of the rainwater gutters at our Sighthill building.
- Carried out retrospective tanking works to the second basement of our Causewayside building.

Looking ahead we undertook preparatory work with a view to:

- Improve the roof drainage at our George IV Bridge building

Sustainable development

Sustainable development covers many areas. It is not a stand-alone concept but rather a process, something to be built into practices and operations.

To develop sustainably, the Library must embed sustainability into every aspect of the Library's operations. We have a long way to go before this way of thinking is worked into the core of everything we do, however we have been making progress by improving sustainable practices in our procurements, business plans, and waste management processes.

In compliance with the Sustainable Procurement Duty, we seek to deliver social, economic and environmental improvements in our procurement and contract management activities where it is proportionate and relevant to do so.

During 2020/21 we continued to:

- Measure our level and value of engagement with SMEs and supported business through direct contracts and through the supply chain on key regulated contracts.
- Ensure fair work first criteria were included in contract terms for regulated procurements.
- Ensure sustainability criteria are included as a minimum in regulated procurement criteria tender evaluations.

In addition, we:

- Agreed that moving forward a minimum 10% weighting should be allocated to sustainability criteria in tender evaluations of regulated procurements.
- Trialled the Sustainable Procurement Duty Tools that, moving forward in 2021/22, will be utilised at the planning stage of regulated procurements to inform decisions and help embed sustainability requirements in our contracts.
- Considered the process for incorporating prompt payment of subcontractors in our replacement FM contract (the highest value contract held by the Library) that will be procured in 2021/22.

Looking ahead we undertook preparatory work with a view to:

- Adopting more sustainable approaches to conservation, particularly around the type of materials that we use and how we can recycle them;

- Trialling alternative exhibition display stands with a view to moving away from the use of Perspex.
- trial purchase of an electric vehicle through CCS Framework.

Wider influence

As a National Library, we play a formal role in society as a site of knowledge. In that role, we have the responsibility to empower individuals by enabling research, both formal and informal, into our relationship with the natural world. From climate science to climate justice, we hold materials that can provide insight, provoke discussion, and inspire change.

As well as providing resources on the climate crisis, we continue our work *collecting* resources on the climate crisis and making them available.

During 2020/21 we:

- Continued in our role as a Zero Waste Scotland Resource Efficient Scotland Ambassador.
- Started collecting materials from Extinction Rebellion, documenting their role in advancing the national conversation on this issue.
- Curated **Living Proof**: a documentary drawing on material from the Moving Image Archives. Watch the [Living Proof trailer on the Take One Action website](#). It will be screened as part of the Take One Action film festival, and then on tour around Scotland with an associated programme of online resources and in-person workshops and events.
- Collaborated with the National Galleries of Scotland in the project **Preserving Pasts, Imagining Futures**: invites people to respond creatively to works from the national collections to visualise how Scotland has been and will continue to be impacted by the climate and ecological emergency, unless decisive action is taken.
- We have published an online a guide to [Researching climate change with our maps website](#).

Figure 4 The Cairngorms National Park – Declining snow cover 1988, 1995, 2016



Looking ahead we undertook work with a view to:

- Develop online workshops aimed at people who want to know more about our resources relating to the climate crisis. We are also developing relationships through which these workshops and other resources will be targeted at Scottish school audiences
- Collect as comprehensively as possible the texts, archives, publications, and media that are being produced around COP26, including web archiving.
- Launch a Collections Discovery feature on Library Search that includes material from across all our collections including e-resources, Google Arts & Culture, schools resources and online events.

Summary of performance figures

A **Green** status means 'Achieved / on target'.

An **Amber** status means 'Progress not sufficient to meet target/ negative progress in reporting period'.

A **Red** status means 'Negative progress'.

Area	Target	2008/09 baseline	2019/20	2020/21	% change against baseline	% change against previous year	Status
GHG emissions (Tonnes CO ₂ e)	Reduce GHG emissions from operations by 75% by 2030 from 2008/09 levels	3,197	984	777	-75.69%	-21.03%	Green
Total energy consumed (kWh)	N.A	7,926,595	3,902,450	3,473,625	-56.17%	-10.98%	Green
Total waste arisings (Tonnes)	Departments to reduce their waste arisings by 25% by 2020, relative to 2004/05 levels	128.9	27.17	6.80	-94.7%	-74.97%	Green
% waste recycled	Recycle 70% of all waste arisings by 2025	49.3%	56.7%	96.2%	+46.9%	+69.66%	Green
% waste to landfill	Only 5% of all waste arisings to go to landfill by 2025	50.7%	41.6%	0%	50.7%	41.6%	Green
Water consumption (m ³)	N.A	9,124	6,099	1,650	-81.91%	-72.94%	Green
Owned transport & business travel (Km)	Not to exceed the baseline year	1,038,859	397,864	11,832	-98.86%	-97.02%	Green

	numbers 2008/09						
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Appendix 1. Table of Greenhouse Gas Emissions

Greenhouse Gas Emissions	2008/09 (Base Year)	2017/18	2018/19	2019/20	2020/21
Gas	530	256	214	263	263
Organisation owned fleet	12	9	6	3	1
Electricity	2,511	904	718	669	509
Business travel	117	50	47	40	2
Waste disposal	18	2	3	4	0
Water supply & disposal	10	6	7	6	2
Total Gross emissions	3,197	1,226	995	984	777