

Governance

0. Governance

(0.1) Provide details of your jurisdiction in the table below.

Response

Administrative boundary of reporting government^

City/Municipality

Next highest level of government

National

Next lowest level of government

Other, please specify (Hetton Town Council - covering the town of Hetton (roughly 9,000 people))

Land area of the jurisdiction boundary (in square km)^

139.5

Percentage range of land area that is green space

21-30%

Current (or most recent) population size^

274200

Population year^

2021

Projected population size

275624

Projected population year

2040

Select the currency used for all financial information reported throughout your response^

GBP Pound Sterling

(0.2) Provide information on your jurisdiction's oversight of climate-related risks and opportunities and how these issues have impacted your jurisdiction's planning.

Response

Select the processes that reflect your jurisdiction's oversight of climate-related issues

Council (or equivalent) is informed by relevant departments, committees and/or subcommittees about climate-related issues

Relevant departments, committees and/or subcommittees are informed by management about climate-related issues

Climate-related issues are considered by the government when undertaking plans and/or strategies

Climate-related issues are considered by the government when undertaking budgeting and/or major capital expenditures

Climate-related issues are considered by the government when undertaking risk management policies

Climate-related responsibilities are assigned to a committee(s) or a subcommittee(s) in the government

Climate-related responsibilities are assigned to management-level positions in the government

Provide further details on your jurisdiction's oversight of climate-related issues

In recognition of the Paris Agreement, Sunderland City Council declared a climate emergency in 2019. The climate emergency declaration committed Sunderland to help combat climate change by reducing citywide emissions and helping global temperature rise stay below 1.5°C by 2050, compared to pre-industrial levels. In 2020 Sunderland's 2030 Shadow Board, which is chaired by the Council's Leader and includes representation from each of the political groups on the Council as well as the Council's key partner organisations, prepared the Low Carbon Framework (available at https://www.sunderland.gov.uk/media/22959/Sunderland-Low-Carbon-Framework/pdf/Sunderland_Low_Carbon_Framework1.pdf?m=637461416504170000) which set out the approach for Sunderland to achieve carbon neutrality by 2040 and was adopted in December 2020. This includes seven strategic priorities: Our Behaviour, Policies and Operational Practices, An Energy Efficient Built Environment, Renewable Energy Generation and Storage, Low Carbon and Active Transport, Green Economy and Consumption and Waste. The Council endorsed the Low Carbon Framework in January 2021 and at the same time adopted its Low Carbon Action Plan (LCAP) which included a target for the Council to become carbon neutral by 2030. The Council has also since developed a more robust version of its own LCAP, which was approved by Cabinet in July 2022 and is available at https://www.seeitdoitsunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000. Progress in relation to the Council's LCAP is regularly reviewed as well as being reported annually to Cabinet.

In addition to the above, Sunderland City Council reaffirmed its commitments to UK100 in February 2022, by signing their new Net Zero pledge. Signatories of this pledge are known as the 'Net Zero Local Leadership Club' and are working collaboratively to ensure net-zero targets are reached as soon as possible. The commitment to UK100 raises Sunderland City Council's and citywide ambitions, to achieve net-zero greenhouse gas emissions by 2030 and 2045 respectively. The Council has corporate performance indicators for greenhouse gas emissions, offsetting, and net emissions.

Shadow Board partners are working collectively to drive Sunderland's commitment to tackling climate change. The partnership meets quarterly to ensure that best practice is shared, that duplication is avoided, and that resource efficiency, joint working and impact are maximised. Each partner is also developing their own Low Carbon Action Plan and carrying out initiatives to enable the city to reach its low carbon goals. The Low Carbon Framework is underpinned by these individual partner Action Plans.

The Council has a Low Carbon Team which supports climate action work across the organisation with a Senior Low Carbon Manager, an International & Engagement Manager, a Principal Sustainable Development Officer, a Principal Energy Efficiency & Retrofit Coordinator, a Carbon Neutral Data & Intelligence Officer, two Senior Carbon Neutral Officers, two Low Carbon Engagement Officers, and two Low Carbon Project Officers. The team supports carbon mitigation projects, working with the Council's Assistant Director of Economic Regeneration and Carbon Task Group to deliver carbon reductions across each of the 7 strategic priorities.

The Council's Deputy Leader is the portfolio holder for Low Carbon, and in 2022, attended the UK100 Climate Leadership Academy for Councillors which provided an opportunity to develop skills, knowledge and confidence in relation to climate change to become a leading climate pioneer in local government. The Council's Economic Prosperity Committee and Audit Sub-Committee also occasionally review progress.

In addition to governance within the jurisdiction, Sunderland is also collaborating with neighbouring local authorities, business and civil society as part of the new Net Zero North East England partnership, which aims to facilitate a strategic and collaborative regional approach to tackling the climate emergency wherever appropriate.

The proposed North East Devolution deal between the national government and the local authorities of Sunderland, Northumberland, Newcastle, North Tyneside, Gateshead, South Tyneside and Durham (to create the North East Mayoral Combined Authority) will transfer new powers and a £1.4 billion investment fund over 30 years, which will enable the new Combined Authority to plan for the long term, with certainty, and unlock the benefits of devolution for 2 million people living in the area. This can include co-benefits to a low carbon future – with increased funding potential for public transport and other key green infrastructure improvements.

Describe how climate-related issues have impacted your jurisdiction's master/development planning

The overarching spatial vision of Sunderland's Core Strategy and Development Plan (CSDP – available at https://www.sunderland.gov.uk/media/22171/Core-Strategy-and-Development-Plan-2015-2033/pdf/CSDP_2015-2033.pdf?m=637159725864470000) is that by 2033, Sunderland will be a place which is resilient to climate change, has maximised the opportunities for renewable energy, embraced sustainable design principles and has reduced the impacts of flooding on homes and businesses. The CSDP includes a number of planning policies which seek to reduce the impact of climate change in conjunction with the overarching spatial vision. This includes the following planning policies: CSDP Policy WVE1, which supports the delivery of decentralised, renewable and low carbon energy, and CSDP Policy BH2, Sustainable Design and Construction, which provides various relevant criteria (which amongst other things) seeks to maximise energy efficiency, reduce waste, conserve water resources and minimise vulnerability to flooding.

It should be noted that when the CSDP was being prepared a Sustainability Appraisal (SA) was undertaken to ensure that the CSDP was considered sustainable. The SA included a strategic objective that ensured that any climate related issues were taken into consideration when preparing the CSDP.

The CSDP also requires that major development, at the planning application stage, includes a Sustainability Statement which clearly sets out how the development incorporates sustainable resource management and high environmental standards.

The Council has adopted a number of Supplementary Planning Documents (SPDs) which sit alongside the CSDP. The Development Management SPD provides guidance which encourages the use of appropriate renewable energy initiatives within residential development. In addition, the Riverside Sunderland SPD, sets out a comprehensive vision and masterplan for the Riverside Sunderland area, encouraging where possible the development of a district heating infrastructure network. Also, the South Sunderland Growth Area (SSGA) (SPD) sets out a comprehensive vision for the SSGA area. It includes the principle that the creation of a low carbon community is a priority at the SSGA. In order to achieve this, all development should seek to (amongst other things) where feasible incorporate green roofs and seek to achieve or exceed government targets regarding sustainable construction.

The Council has also published a Low Carbon Developers Guidance Note to highlight the policies within the adopted planning policy framework, which will assist the Council in achieving its carbon neutrality targets set out within the Sunderland Low Carbon Framework and the Council's adopted Low Carbon Action Plan. The guidance seeks to raise awareness to developers and decision makers to ensure that these policies are taken into consideration when preparing and determining planning applications. The guidance note is available to view on the Council's website at https://www.sunderland.gov.uk/media/30106/Low-Carbon-Developer-Guidance-Note/pdf/Low_Carbon_Developers_Guidance_Note_v2.pdf?m=638243253099170000.

These plans are discussed in more depth in question 7.2.

Describe how climate-related issues have impacted your jurisdiction's financial planning

Low Carbon has been embedded as a cross cutting theme across all Council activity. As a result of this, carbon considerations are actively considered in relation to the Council's capital programme.

Through the Council's Carbon Task Group, the lead for each of the 7 strategic priorities is also ensuring that carbon is considered in the day-to-day activity across the organisation, including revenue and capital programmes of work. This helps to promote cross-organisational working on the Low Carbon agenda across the Council.

In addition to the above, the Council also has a dedicated £1 million budget for Low Carbon activity and projects.

The Council also looks to maximise external funding opportunities to support the delivery of its Low Carbon goals and the Council's lead officer for external funding attends meetings of the Carbon Task Group as well as sharing funding opportunities on a regular basis.

Describe the risks to your jurisdiction related to the transition to a low-carbon economy

There are several risks in Sunderland related to the transition to a low-carbon economy. Firstly, there is a need for economic growth in Sunderland, to improve the quality of life for our residents, including attracting more businesses and creating more jobs. For the city to achieve carbon neutrality, all new and existing businesses need to support this ambition and be able to make their contribution. Some businesses may have conflicting priorities, particularly during post-COVID economic recovery, the emerging cost of living crisis, and as a result of current energy cost rises, which may delay the transition to a low carbon economy.

Secondly, there is a demand for road transport to be upgraded to accommodate planned population growth and the current increase in the popularity of the private car, linked partly to the impact of COVID-19. During the COVID-19 pandemic, the modal share for public transport also fell significantly and has not yet returned to pre-pandemic levels. Public transport is a key aspect of a low carbon city, meaning its modal share therefore needs to be rebuilt. Sunderland also has low EV levels compared to the national average, with 0.9% of registered cars being EVs in the jurisdiction.

Fuel poverty is also a significant issue in Sunderland. According to the UK Government, 13,756 children in Sunderland live in low-income families as of 2021 (30.8%) and 18,513 households in Sunderland are in fuel poverty as of 2020. There is also a high degree of inequality within the city, with significant differences in the quality of life between different wards, with health inequalities increased during the pandemic. For example – in Fulwell 13% of children are living in low-income families compared to 42% in Hendon. A transition to a low carbon economy requires the scale up of green technologies, many of which can be costly. It is important that Sunderland takes a pragmatic approach when tackling greenhouse gas emissions particularly in relation to vulnerable and low-income households and works to ensure the wellbeing of residents. Sunderland is currently delivering the Warm Homes Fund and ECO4Flex projects in the city, which aim to tackle the issue of energy inefficiency and fuel poverty. These projects are discussed further later in the disclosure.

Penultimately, the transition to a low carbon economy requires a scale up of renewable energy technologies such as wind turbines and solar PV. The implementation of this infrastructure can at times take place on greenbelt land, which can reduce biodiversity. UK government is introducing mandatory Biodiversity Net Gain (BNG) for development from November 2023, so any development would be required to provide at least 10% BNG as part of that process.

Finally, the transition to a low carbon economy is a significant challenge for any city, particularly with limited resources. Deployment of significant national government resources will be required to accelerate the transition. Committing to ambitious net zero targets at local level comes with a reputational risk, should the city fail in meeting this ambition.

(0.3) Report how your jurisdiction assesses the wider environmental, social, and economic opportunities and benefits of climate action.

Response

Does the jurisdiction assess the wider opportunities/benefits of climate action?

Yes, wider opportunities/benefits are assessed for many climate actions

Outline how your jurisdiction quantifies the impact of these wider opportunities/benefits

Wider opportunities/benefits are considered at the action planning stage

Wider opportunities/benefits are considered at the action implementation stage

Wider opportunities/benefits are considered at the post-implementation monitoring and evaluation stage

Wider opportunities/benefits are quantitatively assessed

Wider opportunities/benefits are qualitatively assessed

Describe the wider opportunities/benefits of climate action the jurisdiction has identified

Wider opportunities / benefits include:

- Reducing fuel poverty by supporting residents to improve the energy performance of their homes and to reduce heating costs;
- Improving air quality by supporting a shift to more sustainable transport modes in the city;
- Creating safer streets by providing improved walking and cycling conditions and reducing the use of motor vehicles;
- Developing a green and successful economy - by supporting the city's green economy to grow creating more job opportunities, and businesses of all sectors to become more sustainable;
- Encouraging active travel and sustainable behaviour that will benefit physical and mental health, which in turn will reduce the impact on healthcare services and help reduce health inequalities;
- Helping to eliminate food poverty by expanding local food networks and increasing the availability of fresh and seasonal food;
- Reducing social isolation by enabling residents to have increased opportunities to be involved in community projects, which can raise civic pride, increase community wealth-building and encourage active and healthier lifestyles;
- Reducing waste benefitting the environment and saving money for residents by reducing the volume of food thrown away. Using our waste in smarter ways could also support the growth of green business;
- Developing green infrastructure which will help to reduce the potential for flash flooding, cool the city in the summer, support wildlife diversity, tourism and provide quality greenspaces for local people to enjoy;
- Developing varied local sources of energy which will help to ensure that the city has greater energy security along with local green economy benefits.

Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits

Yes, the jurisdiction is collecting disaggregated or spatial data to inform the design and/or monitor the implementation of climate actions

Yes, the jurisdiction is collecting disaggregated or spatial data on the impact of climate actions

Yes, the jurisdiction is engaging with frontline communities most impacted by climate change

Yes, the jurisdiction is designing or implementing climate actions that address the needs of frontline communities most impacted by climate change

Outline how your jurisdiction quantifies the equitable and inclusive distribution of climate action

Each action in Sunderland City Council's Low Carbon Action Plan has a key performance indicator or milestone, some of which help to quantify equitable and inclusive climate action. Examples of this include the number of homes with an EPC in the city, the number of homes assisted through various fuel-poverty and low carbon focussed retrofit schemes, spend on flood alleviation schemes where resilience has increased and Shadow Board attendance % from the Environment, Green and Sustainable (EGS) young people's group.

Many of the current projects in Sunderland that support equitable and inclusive climate action have used disaggregated and spatial data to quantify eligibility within the city.

For example, for the Warm Homes Fund (WHF) project which targets fuel poor properties in the private sector with energy efficiency and fuel poverty measures the Council used the national government's open-source Energy Performance Certificate (EPC) database, Lower Super Output Area (LSOA) fuel poverty data, as well as internal Unique Property Reference Number (UPRN) data to target the least efficient properties which are most likely to house families suffering from fuel poverty. A similar process has also recently been undertaken for a bid to the Energy Redress scheme which targets properties without EPCs, as well as the current ECO4 scheme which delivers insulation and heating upgrades to homes that meet eligibility criteria related to low income / health issues.

Provide evidence and/or more details on the actions your jurisdiction is taking to ensure equitable and inclusive distribution of climate action

Regarding climate mitigation, Sunderland is delivering the Warm Homes Fund (WHF) project, targeting private fuel poor properties with energy efficiency and fuel poverty measures. WHF Lot 1 aims to fit 135 air source heat pumps in low efficiency / low-income properties that have inefficient storage heaters. To facilitate the installation of a heat pump in qualifying properties, a whole-house, fabric-first approach is implemented, ensuring suitable insulation is provided from other funding streams. Lot 2 aims to deliver complementary energy efficiency advice and support for these properties, working with Groundwork North East and Citizens Advice Bureau to provide advice and information.

Climate change was voted the most important issue by Sunderland's young people at the Young People's State of the City debate in 2019 (over 10,000 votes) and young people will witness the most severe impacts of climate change in the future. To engage young people in climate action, the 2030 Shadow Board set up the Environmental, Green and Sustainable (EGS) young people's group in 2021. EGS is an inclusive climate forum, bringing together young people from primary, special, and secondary schools alongside reps from Sunderland Youth Council, young people's minority forums, detached youth work settings, Sunderland College, and the University of Sunderland. Members are represented on the 2030 Shadow Board and contribute to discussions.

Since launch the EGS group formed its own identity, the young people have shaped their own agenda and meet quarterly to take part in a wide range of activities such as discussions, consultations, co-design and volunteering. This includes visiting a gardening project at St. Peter's 'A Space 2 Grow' site and a group litter pick in March at the seafront. In February, EGS also worked with Together for Children to design a plastic survey for schools and have since launched a poster competition encouraging visitors to not litter at the coast and Seascapes were also invited to discuss single-use plastics at one of their meetings. EGS also raised local food and community growing as a priority for 2030 Shadow Board partners and helped shape Sunderland's Food and Nutrition Charter Mark's silver and gold levels for schools. The group has also organised content on the MySunderland.co.uk website's Low Carbon pages and helped to develop a sustainable travel app. Finally, the group discussed biodiversity with Durham Wildlife Trust.

Discussions have also taken part with University of Third Age representatives.

Regarding climate adaptation, one of the objectives of Sunderland's Local Flood Risk Management Strategy (LFRMS) 2016 (available at https://www.sunderland.gov.uk/media/23162/Local-flood-risk-management-strategy/pdf/Sunderland_LFRMS_-_Final_Version_-_Complete.pdf?m=637502096317830000) is to protect the most vulnerable communities and increase resilience to current and future flood risk.

The Council has mapped green spaces across Sunderland and identified areas with less greenspace. This ensures equity and inclusivity when planning nature-based solutions and influenced planting sites in 2022-23. For example, the Levelling-Up Parks funding was awarded to Sunderland and used in Hendon, which has deprivation indices in the top 5% nationally and the lowest tree canopy cover of any of Sunderland's 25 wards.

Voluntary and Community Sector (VCS) Networks cover the 5 geographical areas of the city, coordinated by the Sunderland Voluntary Sector Alliance (VS Alliance). Local groups and organisations working at grass roots level are consulted with during the development and delivery of Area Investment Plans (which include Low Carbon) and priorities and commissioned to support delivery of support services within communities, maximising assets and increasing opportunities for social value-added. The views of all sectors of the community are considered, and many of the groups working in the most deprived neighbourhoods are contributing to changing behaviours and strategies to address climate change. The VS Alliance act as a conduit and two-way flow for consultation and information sharing on citywide initiatives, via the 5 area networks. Over 600 organisations are Members of the Sunderland VS Alliance and cover a breadth of service areas for vulnerable target audiences.

Public Health colleagues in Sunderland are reducing food waste via the Sunderland Good Food Partnership, including working with the 'Bread and Butter Thing' to redistribute surplus food and reduce the amount of food being wasted pre-retail. Sunderland is also launching a 'Grow Share Prepare' network, which will support people to grow their own food and help landholders develop community allotments and food growing projects.

Finally, Sunderland's Local Cycling and Walking Infrastructure Plan (LCWIP) aims to improve walking and cycling networks, with a key focus being on the areas with the greatest potential impact to increase active travel.

(0.4) Report on your engagement with other levels of government regarding your jurisdiction's climate action.

Climate component

Climate risk and vulnerability assessment

Level of governments engaged in the development, implementation and/or monitoring of component

National-level government

Outline the purpose of this engagement

To facilitate the integration of this component into the National Adaptation Plan (NAP)

Comment

Sunderland's Level 1 Strategic Flood Risk Assessment (SFRA – published in November 2020) has been carried out in accordance with the central Government's latest development planning guidance including the revised National Planning Policy Framework (NPPF) (2019) and flood risk and planning policy guidance, the Flood Risk and Coastal Change Planning Practice Guidance (FRCC-PPG).

The Northumbria Community Risk Register, which covers the whole of Northumbria including Sunderland, is based on the National Risk Register produced by central Government. This covers all climate hazards for the region.

More detail on these risk assessments, including links and attachments, can be found in section 1.

AD.25_Strategic_Flood_Risk_Assessment_Level_1 (1).pdf

Climate component

Community-wide GHG emissions inventory

Level of governments engaged in the development, implementation and/or monitoring of component

National-level government

Outline the purpose of this engagement

To collect data and/or feedback from other levels of government to inform its development

Comment

The Department for Energy Security and Net Zero (DESNZ) provide publicly available greenhouse gas emission data to all local authorities in the UK. This data can be found at <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>. Alongside the Scatter greenhouse gas emission data disclosed in this report, this data is utilised by Sunderland to help to inform progress against the goals of the Paris Agreement.

In addition to greenhouse gas data, central government also provide useful data regarding transport, energy and waste which all contribute to Sunderland City Council's

environmental performance monitoring.

Climate component

Climate action plan

Level of governments engaged in the development, implementation and/or monitoring of component

State/Regional-level government

Outline the purpose of this engagement

To facilitate the integration of this component into the Nationally Determined Contribution (NDC)

Comment

The seven local authorities across North East England have come together to establish the North East Net Zero Partnership reflecting shared commitments to tackling climate change. The forum provides an environment to share experience and expertise as well as to identify areas where objectives are aligned and action can be taken forward more effectively across a larger geography. The partnership enables collaboration across all sectors in shared priority areas. As an early action a joint application was submitted in 2022 for a behaviour change project to develop across the region. The Net Zero North East Inaugural Summit was also held in November 2022. More information can be found at <https://www.netzeronortheastengland.co.uk/>.

Sunderland is also working with neighbouring local authorities to develop and deliver wider regional level climate related plans and projects. This includes a Bus Service Improvement Plan, the North East Transport Plan, and the North East Community Forest all at a whole region (seven local authorities) level (LA7 level) as well as the sub-regional the South Tyne and Wear Joint Municipal Waste Strategy.

In addition, Sunderland is working with the UK government to deploy numerous funding streams in line with the key priorities of the citywide Low Carbon Framework and the Council's Low Carbon Action Plan. For example, The Levelling Up Fund is being deployed for several low carbon developments in Sunderland, such as the Housing Innovation Construction Skills Academy (HICSA), Vaux Housing and at the Nile + Villiers community housing scheme in Sunnyside. HICSA, which is scheduled to open in January 2024, will upskill and train people in low carbon technology to support the delivery of Sunderland's low carbon ambitions for new build and retrofitting. Education Partnership NE (Sunderland College) have recently been granted a license from the Retrofitting Academy to deliver qualifications from HICSA. Aside HICSA, Vaux Housing is providing 132 new homes to Future Homes Standard and is utilising solar PV, air source heat pumps and battery technology. Vaux housing will also be connected to a smart energy network to effectively manage consumption, reduce waste and mitigate impact of rising energy costs. Finally, it is expected that Sunnyside will utilise MMC solutions for homes, with low embodied carbon, renewable energy technology, and promotion of the circular economy. Through a separate project, the Levelling Up Fund will also support the delivery of three rapid charging hubs and for 20 buses operating in Sunderland to be converted to electric. In addition to the Levelling Up Fund, Sunderland City Council has used Public Sector Decarbonisation Scheme Funding to help decarbonise municipal operational buildings and is working with partner organisation Gentoo to enable Social Housing Decarbonisation Fund resources to decarbonise social housing in Sunderland among other examples.

Finally, through the Council's Low Carbon Action Plan, Sunderland also aims to work with UK government to implement Modern Methods of Construction (MMC) in development in new houses.

Sunderland has also recently become part of a 3 year Destination Development Partnership (DDP) with the seven local authorities across the North East (LA7) which is focused on the visitor economy within the context of destination management. This is a pilot approach with Visit England, the first of its kind in the UK. As part of the DDP, early discussions have taken place on the need to increase knowledge and awareness of sustainability issues in relation to tourism with a range of actions to be developed in the 2023/24 and 24/25 financial years including within Sunderland.

Climate component

Climate mitigation target

Level of governments engaged in the development, implementation and/or monitoring of component

National-level government

Outline the purpose of this engagement

To facilitate the integration of this component into the Nationally Determined Contribution (NDC)

Comment

The UK has a target of being net zero as a nation by 2050 and it is widely acknowledged that cities are key to this. It is also widely acknowledged that local partnerships, such as the Sunderland City Partnership, are in a unique position to help reduce citywide greenhouse gas emissions. As well as knowing the detail, geography, demographics and needs of their local areas well, cities, local authorities and city partnerships have a strong influence over a proportion of the emissions in their area. The Local Government Association predicted in 2021 that Local Authorities alone have a direct or strong influence over 35% of area-wide emissions.

In 2020, with the national target of 2050 in mind, Sunderland set an ambitious goal to become a carbon neutral city by 2040. Achievement of this target will contribute to the UK's 2050 goal.

In addition to the above, Sunderland City Council reaffirmed its commitments to UK100 in February 2022, by signing their new Net Zero pledge. Signatories are working collaboratively to ensure net-zero targets are reached as soon as possible, committing the city to net-zero greenhouse gases by 2045 at the latest. The signature also broadens the council's ambition from carbon neutral to net zero by 2030.

Climate component

Climate action plan

Level of governments engaged in the development, implementation and/or monitoring of component

National-level government

Outline the purpose of this engagement

The development of this component is required by the national government (e.g., by law, regulation and/or agreement)

To facilitate the integration of this component into the National Adaptation Plan (NAP)

Comment

Under the Flood and Water Management Act 2010 (FWMA), Sunderland City Council became a Lead Local Flood Authority (LLFA). As a LLFA, Sunderland City Council has key responsibilities to manage flood risk from localised sources across the city and a duty to develop, maintain, apply and monitor a Local Flood Risk Management Strategy.

Sunderland's Local Flood Risk Management Strategy (LFRMS), last updated in 2016, has been developed with strategic objectives and guiding principles which are

consistent with the Environment Agency's (EA) National Strategy. Furthermore, the LFRMS has been prepared with reference to the Local Government Group Framework and is also consistent with the National Flood and Coastal Erosion Risk Management (FCERM) Strategy .

In addition to the above, under the Coastal Protection Act 1949, Sunderland City Council also has a legal duty to monitor and manage the coastline and coastal erosion.

Aside flooding, Sunderland is part of the North East Community Forest (NECF) Partnership who aim to plant 500 hectares of trees by 2025, doubling canopy cover in the region by 2050. The NECF was launched in February 2022 and during the first NECF planting season (2021/22), Sunderland planted 8462 whips; 90 orchard trees (to encourage local growing); 6777 hedge plants across 1360 metres; 7.37ha of wildflower meadow seeding. During the second planting season (2022/23), Sunderland planted 2000 whips; 487 street trees / public realm standard trees; 189 orchard trees; 2412 hedge plants across 400m; 2.48ha of wildflower meadow seeding; 14000 bulbs. Sunderland aims to deliver at least 13ha of new tree planting in 2023/24.

Sunderland City Council also aims to reduce mortality due to air pollution each year. This is a common national goal through Public Health England. More information can be found at <https://fingertips.phe.org.uk/profile/health-protection/data#page/0/gid/1000002/pat/6/ati/102/are/E08000024/iid/93463/age/288/sex/4/cid/4/tbm/1>.

Finally, Sunderland City Council aims to reduce the number of residents within the city who are fuel poor. This is also a common national goal through Public Health England. More information can be found at <https://fingertips.phe.org.uk/profile/wider-determinants/data#page/0/gid/1938133043/pat/6/ati/102/are/E08>

Sunderland_LFRMS_-_Final_Version_-_Complete.pdf

(0.5) Report your jurisdiction's most significant examples of collaboration with government, business, and/or civil society on climate-related issues.

Primary entity collaborated with (selection mandatory)

Business	Other, please specify (2030 Shadow Board Partners)
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Mechanisms used to collaborate

Collaborative initiative
City business partnership platform
Convening industry groups
Reporting of climate and/or environmental data
Project delivery - Public Private Partnership
Policy and regulation development/ implementation
Climate action plan implementation

Areas collaboration focused on

Adaptation
Agriculture
Building and Infrastructure
Ecosystem restoration
Education
Emissions reduction
Energy
Food
Forestry
Industry
Landscape and jurisdictional approaches
Natural environment
Public health
Resilience
Social Services
Transport (Mobility)
Waste
Water

Description of collaboration

Sunderland City Council has set up the 2030 Shadow Board with representatives from key organisations across the city, including the local NHS Foundation Trust, the University of Sunderland, Sunderland College (Education Partnership NE), North East England Chamber of Commerce (an independent business membership organisation representing over 3,000 businesses in North East England), Voluntary Sector Alliance, Together for Children, Transport NE, Sunderland Youth Council as well as cross-party Elected Member representation from each Group on the City Council and representation from the EGS group (more information available at <https://www.mysunderland.co.uk/article/20627/Environmental-Green-and-Sustainable-Group>). The 2030 Shadow Board's purpose is to work collectively to drive forward Sunderland's ambitions and commitment to tackling climate change.

Each partner is continuing to develop and implement its own action plan and is actively carrying out low-carbon initiatives to help enable the city to reach its low carbon goals. Current partner action plans can be found at <https://www.seeitdoitsunderland.co.uk/article/20077/Working-together>. The partnership meets on a quarterly basis and ensures that best practice is shared, and joint working is maximised.

While the EGS group referred to earlier has been developed with significant input from Together for Children, the College and University, all partners on the 2030 Shadow Board committed to support its work and identify opportunities to engage young people through their own activity. The city's Sunderland Business Partnership has also discussed the Low Carbon Framework and, on an ongoing basis, continues to consider ways in which it can help achieve the city-wide target of Sunderland being carbon neutral by 2040 and work has recently begun with Sunderland Business Improvement District on a similar basis which is planning to feature low carbon goals in its Business Plan for its third term (to commence April 2024 subject to a successful ballot with businesses in November 2023 to secure the term).

Other entities collaborated with

Academia
Vulnerable population groups
Education sector
Health Care
Real Estate

Primary entity collaborated with (selection mandatory)

Business	Other, please specify (SMEs)
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Mechanisms used to collaborate

Economic development
 Funding (grants)
 Technical assistance
 Project implementation and management
 Climate action plan implementation

Areas collaboration focused on

Building and Infrastructure
 Emissions reduction
 Energy
 Industry
 Resilience

Description of collaboration

Sunderland City Council delivered the Business Renewables Energy Efficiency Sunderland (BREEZ) project, which helped Small and Medium-Sized Enterprises (SMEs) to install energy efficiency measures. BREEZ was funded through ERFC, with an overall objective of BREEZ was to reduce energy consumption and enable carbon reduction in a compliant and cost-effective way. This was achieved by upgrading old, inefficient systems with new, energy-efficiency upgrades that have been approved and agreed prior to their installation. Typically, BREEZ offered 50% grant funding towards microgeneration (e.g., Photovoltaics), insulation, low-carbon heating upgrades and LED lighting. Grant support for upgrading business process equipment was also sometimes available. As at the end of the project in May 2023, 83 SMEs had been engaged (including audits, advice and guidance). 74 grants have been claimed with a total value of £532,449.

In addition to the BREEZ project, Sunderland was also part of the Business Energy Saving Team (BEST) which ran until March 2022. BEST was a project funded by the European Regional Development Fund (ERDF) and delivered collectively by local authorities in North East England. The BEST team provided businesses with a full energy audit, designed to help identify ways to save energy, money, and carbon emissions. If businesses met certain criteria the BEST team could also provide a grant to help cover costs. As of the end of BEST in March 2022, Sunderland City Council lead the regional performance table, with 21 approvals, 14 grants claimed, and a total project value of £130,000 invested in energy efficiency improvements saving 327 tonnes of carbon equivalent.

Both BREEZ and BEST involved close cooperation between project staff from the Council and the wider Business Investment Team and businesses.

More information on BREEZ can be found at <https://www.sunderland.gov.uk/Breez>.

Other entities collaborated with

Other, please specify (ERDF)

Primary entity collaborated with (selection mandatory)

Business	Other, please specify (Transport)
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Mechanisms used to collaborate

Collaborative initiative
 Capacity development
 Multi-jurisdictional regional collaboratives
 Project implementation and management
 Project delivery - Public Private Partnership
 Climate action plan implementation

Areas collaboration focused on

Emissions reduction
 Energy
 Resilience
 Transport (Mobility)

Description of collaboration

The North East Joint Transport Committee brings together seven members from the North East Combined Authority (comprising Durham, Gateshead, South Tyneside and Sunderland) and the North of Tyne Combined Authority (comprising Newcastle upon Tyne, North Tyneside and Northumberland) together with other key organisations such as Nexus (main provider of key public transport infrastructure in the Tyne & Wear region). The North East Joint Transport Committee Transport Plan is the first region-wide Transport Plan for the seven local authority areas in the North East. The Plan sets out priorities and forms the basis for bids and requests for funding for transport investment in the North East up to 2035.

Delivering this Plan, achieving the vision and objectives will support a shift to a more sustainable and healthier way of life in the North East, through lowered emissions, better air quality and travel choices helping to provide:

- Easier access to education, skills, and higher value jobs
- Health levels at least equal to other regions in the UK
- Better connections from the North East to national and international destinations
- A transport network with improved environmental credentials including more sustainable journeys, better air quality and reduced carbon output
- A safer and more reliable integrated transport network, which is more intuitive for customers, with a sustainable cost base
- Direct job opportunities in the transport and infrastructure sectors
- Enabling new development and housing sites and improving accessibility to existing communities.

The North East Rail and Metro Strategy builds on the North East Transport Plan and outlines the future for rail and Metro in the North East region.

To help achieve the North East Transport Plan's commitment for carbon neutral transport, the North East Rail and Metro Strategy commits to:

- increasing the number of people travelling on rail and Metro in preference to the private car,
- increasing the share of goods transported by rail
- introducing new trains, more efficient electric ones on the Metro and electric / battery / hydrogen ones on the local rail and modal shift from road to rail on freight
- improving stations and depots.

The North East's first Bus Service Improvement Plan (BSIP) outlines region-wide ambitions to make buses more attractive by making them an affordable and practical

alternative to using private cars for more people and helping existing bus users to travel more frequently. The ambitious plan aimed to return bus ridership – which at the time of publication were 25% lower than before the pandemic – to pre-Covid levels by March 2023 and to grow by 10% each year thereafter. This would provide a major economic boost to the region, reduce road congestion, and contribute towards climate change targets.

The BSIP aims to:

- Repair the damage caused by COVID-19 to bus ridership in the North East by returning to the 162m million trips by March 2023 .
- Grow bus patronage, targeting a growth of 10% on the 2019 baseline by March 2024 and a further 10% by March 2025.
- Grow bus modal share by 1 percentage point by March 2024, and another 1% by March 2025.
- Grow bus passenger satisfaction to 92% by March 2024 and 93% by March 2025.
- Make buses faster, punctual and reliable.
- Make buses greener, bringing them all to Euro 6 or better by March 2025.

The numerous measures proposed include improvements to timetables and fares, extensive priority measures on roads and at junctions to speed buses up – including two new Park & Ride sites, a set of affordable fare “caps” that work across all buses and Metro services, lower fares for many young people and simplified and improved information.

Sunderland City Council is working with Nexus and bus operators to improve bus service infrastructure and bus services by low/zero carbon bus vehicles, real time information and integrated ticketing. Sunderland City Council is also working with neighbouring local authorities to enable cross boundary ticketing and Wi-Fi improvements, making the bus a more attractive choice.

Policy ST4 within Sunderland’s Draft Allocation and Designations Plan (available at https://www.sunderland.gov.uk/media/22878/AD-01-Allocations-and-Designations-Plan-2020/pdf/AD.01_Allocations_and_Designations_Plan_20201.pdf?m=637435558267800000) safeguards land at Washington North, Washington East, Ryhope and Doxford Park to support the future expansion of the Tyne & Wear Metro and rail network in the city .

Further detail regarding specific sustainable transport schemes currently being delivered in Sunderland can be found throughout the report.

AD.30_North_East_Transport_Plan_2021-2035.pdf

TNE-BSIP-Nov-25-2.pdf

North-East-Rail-and-Metro-Summary-Portrait-Update-Dec-22-v2.pdf

Other entities collaborated with

Regional government

Primary entity collaborated with (selection mandatory)

Civil society	Residents/community groups
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Mechanisms used to collaborate

Knowledge or data sharing

Climate action plan implementation

Areas collaboration focused on

Adaptation

Agriculture

Building and Infrastructure

Ecosystem restoration

Education

Emissions reduction

Energy

Food

Forestry

Industry

Landscape and jurisdictional approaches

Natural environment

Public health

Resilience

Social Services

Transport (Mobility)

Waste

Water

Description of collaboration

Within Sunderland’s Low Carbon Framework, Strategic Priority 1 (Our Behaviour) seeks to engage key groups within Sunderland to encourage positive behaviour change and reduce individual carbon footprints. To improve engagement Sunderland City Council drafted an engagement plan as a dynamic document to shape this activity. It identifies key target groups: residents; children and young people; voluntary community sector; employees; partners; and businesses. The plan outlines the ways the Council would like to engage with each group to involve them in decision making and support them in taking action to mitigate and adapt to climate change.

All strands aim to:

- understand the awareness of climate change among the target group and their feelings about Sunderland’s response to it;
- actively listen to and engage target groups in co-creating solutions and participating in decision-making processes on climate action;
- share reliable information through diverse and accessible formats on the climate crisis and its likely future impacts and on the local context and response;
- support individuals and organisations to make informed decisions and understand the Carbon impact of these, including through sharing best practice and case studies;
- signpost target groups to support from the Council and other local, regional, national and international organisations on how to live and work more sustainably;
- facilitate connections between target groups and others in the city working on these topics

A communications plan for each target audience is drafted monthly.

Concrete actions are outlined for each different group and at varying stages of delivery. One example for each group includes:

- conducting residents’ surveys and research to understand current attitudes locally and developing a bespoke Low Carbon communications strategy and monthly plan accordingly;
- founding a young people’s forum to bring together young people from primary and secondary schools as well as Sunderland college, the University of Sunderland, the Students’ Union, and minority youth groups to meet quarterly to discuss climate action; to participate in Low Carbon volunteering opportunities; to send representation to the city’s 2030 Shadow Board; and to be consulted on city-wide Low Carbon developments such as the city-wide low carbon website, a new sustainable travel app being

developed by the Council and a local chartermark being rolled out to all schools and youth services on Food and Nutrition;

- working in partnership with Sunderland's Voluntary Sector Alliance to include Low Carbon in priorities, to feature Low Carbon in regular newsletters to 600+ organisations; to support sustainability-related activities with volunteering capacity, and to share and support funding opportunities;
- ensure that Low Carbon is featured in internal communications and on staff social media and intranet sites and to recruit staff from different directorates to act as future 'Green Champions' within the organisation to receive and cascade information, activities and opportunities such as ways to use staff volunteering days for Low Carbon activities and to identify potential areas for improvement;
- working with Partner organisations to support benchmarking and share data and updates which support delivery of the city's Low Carbon Framework;
- sharing opportunities for engagement in city-wide programmes such as the newly-launched Refill Sunderland SUP minimisation scheme .

Sunderland_Low_Carbon_Framework1.pdf

Other entities collaborated with

NGO and associations

Education sector

Other, please specify (young people; employees; all businesses in general)

Primary entity collaborated with (selection mandatory)

Business	Other, please specify (Transport)
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Mechanisms used to collaborate

Collaborative initiative

Economic development

Financing (investment)

Cleaner production industry support

Project implementation and management

Project delivery - Public Private Partnership

Climate action plan implementation

Areas collaboration focused on

Building and Infrastructure

Emissions reduction

Energy

Industry

Transport (Mobility)

Description of collaboration

Sunderland is seeking to facilitate investment in innovation and production linked to electrification of advanced manufacturing, reflecting the city's key role in EV production and battery manufacturing, as well as its role to date working with businesses as well as partners in the region including Newcastle University and the North East Automotive Alliance which has resulted in the Driving the Electric Revolution (DER) Industrial Centre NE being located in Sunderland adjacent to Nissan and the International Advanced Manufacturing Park (IAMP).

The 'Driving the Electric Revolution North East' Centre in Sunderland is one of four across the UK, which are part of a large-scale Government-backed programme run by a consortium led by Newcastle University. It is specifically intended to facilitate projects in the field of Power Electronics, Machines & Drives and enable the UK to capture part of the significant global market opportunity which electrification represents. The Centre for Driving the Electric Revolution (DER) in the North East is intended to provide open access facilities, combining state-of-the-art equipment with expertise in innovation and production, enabling activities such as prototyping and scale-up.

The IAMP creates significant scope for large-scale production of new environmental technologies that are being developed in the area. The IAMP is being brought forward by Sunderland City Council and South Tyneside Council, with developer Henry Boot.

On 1 July 2021 Envision AESC announced that they will be building their second gigaplant on IAMP with 9GWh of production capability which will create 700 jobs and safeguard a further 300 jobs. This was part of a wider announcement by Nissan regarding the creation of Nissan 36Zero in Sunderland. This inward investment announcement which will increase the city and region's green economy and support decarbonisation of transport followed significant co-operation between the local authority and both Nissan and Envision AESC as well as central government. Construction work is well underway on site at IAMP on the new gigaplant.

In addition, Saietta Electric Drives announced their decision to invest in Sunderland in March / April 2022 following close collaboration with the City Council as well as engagement with the North East Automotive Alliance (of which Sunderland City Council is a member) and its EV North group. From their new facility they will manufacture electric motors and drives to support decarbonisation of transport (automotive, marine etc).

Sunderland is home to a range of fast-growing, innovative SMEs working at the leading-edge of the electrification of the automotive and other sectors. Hyperdrive Innovation has recently been acquired by USA-company Turntide (along with Borg Warner-Sevcon of Gateshead and Avid of Northumberland). The company designs and produces lithium-ion battery packs and battery management systems in the city, employing around 70 people. Advanced Electric Machines (AEM) is a spin-out from Newcastle University that manufactures electric motors and drive technologies in the city. AEM employs more than 50 people in a facility with space to annually produce 50,000 next generation electric motors.

The Port of Sunderland is developing as a strategic 'cleantech' hub. Norwegian company Wastefront is about to start construction of a £100 million, 11,175 sq.m. material recovery plant processing end-of-life tyres on a 2.8 ha site, creating 30 jobs. Another Norwegian company, Quantafuel, has committed to a £100 million, 16,375 sq.m. plastic recycling plant on a 5.2 ha site at the Port, generating 150 jobs. In order to accommodate further projects, 'Trinity Rail, Road & Sea Enterprise Zone' at the Port has been prepared for development, with 4.5 ha of brownfield land capable of accommodating 20,000 sq.m. of floorspace.

Other entities collaborated with

National government

Academia

Energy

Primary entity collaborated with (selection mandatory)

Civil society	Academia
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Mechanisms used to collaborate

Collaborative initiative
 Capacity development
 Project delivery - Public Private Partnership

Areas collaboration focused on

Building and Infrastructure

Description of collaboration

Sunderland Council and College (Education Partnership North East) are working closely with industry to develop the Housing Innovation Construction Skills Academy (HICSA) at Riverside Sunderland which will provide education and training opportunities, linking to Research & Development to ensure the skills of the region meet the future needs of industry linked to modern methods of construction (MMC). The partnership includes close cooperation with Sunderland-born architect George Clarke's Ministry of Building Innovation and Education (MOBIE).

This will support the goal of Sunderland becoming carbon neutral as a city by 2040, also training local people to deliver decarbonisation programmes for the city's existing homes and neighbourhoods that will improve energy efficiency, reduce carbon footprint and keep residents warm in winter months, and that will lead the way with training MMC.

HICSA is currently scheduled to open in Spring 2025.

Other entities collaborated with

Industrials

Primary entity collaborated with (selection mandatory)

Business	Utilities
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Mechanisms used to collaborate

Knowledge or data sharing
 Reporting of climate and/or environmental data

Areas collaboration focused on

Water

Description of collaboration

With relation to water, and in particular flood risk management, Sunderland City Council collaborate on engineering and consulting procurement, project implementation and management, funding (grants), as well as policy and regulation consultation. For example:

- Sunderland City Council work with Northumbrian Water as part of the Northumbrian Integrated Drainage Partnership (NIDP) to identify key improvements and schemes.
- Northumbrian Regional Flood and Coastal Committee (RFCC) includes the Environment Agency and 7 North Eastern Local Authorities.
- Sunderland City Council forms part of the Association of Sustainable Drainage Authorities

Other entities collaborated with

Regional government
 Neighboring local government
 Local government within country/area

Primary entity collaborated with (selection mandatory)

Government/Public body	National government
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Mechanisms used to collaborate

Collaborative initiative
 City business partnership platform
 Knowledge or data sharing
 Capacity development
 Multi-jurisdictional regional collaboratives
 Reporting of climate and/or environmental data
 Funding (grants)
 Technical assistance
 Project implementation and management
 Project delivery - Public Private Partnership
 Climate action plan implementation
 Nationally Determined Contribution (NDC) development/ implementation
 Requirement to develop and implement emissions reduction target

Areas collaboration focused on

Adaptation
 Agriculture
 Building and Infrastructure
 Education
 Emissions reduction
 Energy
 Food
 Forestry
 Industry
 Landscape and jurisdictional approaches
 Resilience
 Transport (Mobility)
 Waste
 Water

Description of collaboration

In February 2022 Sunderland City Council reaffirmed its commitments to UK100, by signing their new Net Zero pledge. Signatories of this pledge are known as the 'Net Zero Local Leadership Club' and are working collaboratively to ensure net-zero targets are reached as soon as possible.

UK100 brings together ambitious local authorities to share knowledge, collaborate, and petition the central UK government with their collective power (108 Councils have already signed up to the revised pledge). UK100 works closely with elected representatives and policy experts to develop solutions to the challenges local leaders face and build public support for the net-zero transition.

Through reaffirming commitments to UK100, this reflects increased ambition by the Council and city, through increasing our targets.

In 2022 the Council's Deputy Leader (and portfolio holder for Low Carbon) attended the UK100 Climate Leadership Academy for Councillors which provided an opportunity to develop skills, knowledge and confidence in relation to climate change to become a leading climate pioneer in local government.

Sunderland UK100 Pledge Signed.pdf

Other entities collaborated with

Local government within country/area

Academia

Climate initiatives/networks

Communication Services

Consumer Discretionary

Consumer Staples

Energy

Financials

Health Care

Industrials

Information Technology

Materials

Real Estate

Utilities

Primary entity collaborated with (selection mandatory)

Civil society	NGO and associations
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Mechanisms used to collaborate

Collaborative initiative

Knowledge or data sharing

Reporting of climate and/or environmental data

Climate action plan implementation

Areas collaboration focused on

Adaptation

Agriculture

Building and Infrastructure

Ecosystem restoration

Education

Emissions reduction

Energy

Food

Forestry

Industry

Landscape and jurisdictional approaches

Natural environment

Public health

Resilience

Social Services

Transport (Mobility)

Waste

Water

Description of collaboration

As a national finalist in the WWF One Planet City Challenge 2021, Sunderland was invited to participate in the 'We Love Cities' campaign in September-October 2022.

'We Love Cities' is a public engagement campaign that allows people across the world to express support for sustainable urban development by voting for their favourite finalist from WWF's One Planet City Challenge and posting improvement suggestions for these cities.

The central aim of the campaign is to:

- inspire and raise awareness for the sustainability progress being made in cities;
- give the general public an opportunity to celebrate, vote and upgrade their city through making suggestions to decision makers;
- reward communities and strengthen the bond between the public and decision makers.

Sunderland developed a communications plan to ensure the campaign was widely shared in a range of formats and promoted other activities to sit alongside it (such as school posted competitions with finalists displayed around the city). Sunderland also worked with a diverse range of partners to ensure maximum engagement in the campaign, including the Environmental, Green and Sustainable (EGS) group. The campaign was also presented at the 2030 Shadow Board with partners from all sectors committed to its rollout.

We Love Cities Sunderland Logo.png

Other entities collaborated with

Residents/community groups

Primary entity collaborated with (selection mandatory)

Government/Public body	National government
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Mechanisms used to collaborate

Collaborative initiative
City business partnership platform
Knowledge or data sharing
Capacity development
Convening industry groups
Technical assistance
Engineering and consulting procurement
Policy and regulation development/ implementation
Nationally Determined Contribution (NDC) development/ implementation
Development of local/regional adaptation plans, National Adaptation Plans and/or National Adaptation Programmes of Action (NAPAs)

Areas collaboration focused on

Adaptation
Building and Infrastructure
Emissions reduction
Energy
Resilience

Description of collaboration

In autumn 2021 the Department for Business, Energy and Industrial Strategy (BEIS – now being taken forward by the Department for Energy Security and Net Zero (DESNZ)) consulted on proposals for the implementation of heat network zones in the UK. The overall aim of this is to develop heat networks in zones where they can provide the lowest cost low carbon heat to the end-consumer in England through regulation, mandating powers, and market support.

Sunderland are one of 28 pilot cities assisting DESNZ with their methodology for heat network zoning – working with major and large energy users among the city's business community and public sector . With the support of contractor WSP the Council has completed an initial review of the administrative boundary and is currently working on a third phase of work issued by DESNZ. The third phase is exploring further feasibility regarding a Sunderland Central network and east Washington.

Other entities collaborated with

National government
Regional government
Neighboring local government
Local government within country/area
Academia
Climate initiatives/networks
Residents/community groups
Communication Services
Consumer Discretionary
Consumer Staples
Energy
Financials
Health Care
Industrials
Information Technology
Materials
Real Estate
Utilities

Primary entity collaborated with (selection mandatory)

Civil society	Education sector
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Mechanisms used to collaborate

Collaborative initiative
Capacity development
Funding (grants)
Project implementation and management

Areas collaboration focused on

Adaptation
Agriculture
Building and Infrastructure
Ecosystem restoration
Education
Emissions reduction
Energy
Food
Forestry
Industry
Natural environment
Resilience
Transport (Mobility)
Waste
Water

Description of collaboration

Free opportunities available to schools in the city are circulated regularly such as activities organised through the Waste and Recycling Visitor Education Centre which saw 8 Sunderland schools take part in waste education activities from January 2023 to April 2023. During this time period, a total of 621 students took part in activities such as bird feeder workshops, whole school waste assemblies, waste workshops, whole school waste events, zero waste lunch and cooking workshops, and food growing workshops.

Other carbon-cutting initiatives that have been shared with schools include the Wildlife Trust's Queens Green Canopy, school funding to achieve the Sunderland Food and Nutrition charter, the Grow Wild's Community Programme, Parkthatbike, the OMEGA project (which promotes local growing, eating and healthy food through gardening and cooking in schools, run together by the Council, Together for Children and OASES) and supported tree planting with several Sunderland primary and secondary schools getting involved .

During COP27 Sunderland City Council launched a new initiative called the Sunderland Climate Friendly Schools project to support Sunderland's schools, children and young people to have the knowledge, confidence and skills required to drive the city's low carbon ambitions forward. This is a two-year programme led by Outdoor and Sustainability Education Specialists (OASES), the programme aims to improve environmental literacy and take action to tackle climate change.

Sunderland schools including Kepier, St Anthony's Girls Catholic Academy, Portland Academy, Albany Village Primary School, Barmston Village Primary School, Barnes Junior School, Hetton Lyons Primary School, Hudson Road Primary School, Seaburn Dene Primary School and Wessington Primary School were selected to take part in the Sunderland Climate Friendly Schools project to receive intensive support to develop their curriculum, undertake a carbon audit and to make climate-friendly changes.

To date all 10 Sunderland Climate Friendly Schools have been working closely with OASES staff and the Low Carbon Team. These schools have been supported to complete a school audit; set up a climate action team; develop a school action; complete a whole school assembly; and undergo training for teaching staff and governors. By September 2023 all schools will receive Climate Friendly Schools status when the 10 actions they have identified have been completed. School actions are based around 7 climate friendly themes including energy, transport, building, water, food, consumption, and grounds. Examples of the carbon-cutting actions the schools are taking forward include growing vegetables, introducing children to possible future careers in the green energy sector, promoting a uniform swap shop, installing a water butt to harvest rainwater, creating an energy saving campaign in school, investigating renewable technologies to install and planting trees to educate their young people on the importance trees play in relation to climate change.

Alongside the Sunderland Climate Friendly project, Sunderland City Council have also launched an initiative called the Wear Sustainable Resources. Led by Outdoor and Sustainability Education Specialists (OASES), 5 Sunderland Schools including Sandhill View Academy, St Aidan's Catholic Academy, Harry Watts Academy, Ryhope Junior School and St Benet's RC Primary School were selected to develop and trial the Wear Sustainable Low Carbon resources which will be made available for all key stages from September 2023 to learn about Sunderland's Low Carbon Journey.

The Wear Sustainable Resources are curriculum linked and enable young people across Sunderland to understand the city's transformation through history to its increasingly sustainable cityscape. The 5 selected schools are the first to experience 5 new educational lessons that focus upon the science of climate change, Sunderland's carbon journey, the global / local responses to the crisis and hopes for a climate friendly future; the contents of an associated school loan box; and a guided trail around the city, that illustrates and expands upon the lesson content. The resources are in their final stage of development and refinement following feedback from the teacher scrutiny group which took place in April 2023 following their students experiencing the lessons and guided trail delivered by OASES staff.

Sunderland also held an Eco-Fest during September 2022.

This builds on early activity in 2021 which as the COP26 school grants funded by Sunderland City Council which saw 6 secondary schools and 2 primary schools design and deliver a range of carbon-cutting initiatives, from planting trees to creating orchards, reducing single-use plastics, and harvesting willow.

Other entities collaborated with

Please select

Primary entity collaborated with (selection mandatory)

Civil society	Residents/community groups
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Mechanisms used to collaborate

City business partnership platform
Knowledge or data sharing
Reporting of climate and/or environmental data
Climate action plan implementation

Areas collaboration focused on

Adaptation
Building and Infrastructure
Ecosystem restoration
Education
Emissions reduction
Energy
Food
Forestry
Industry
Landscape and jurisdictional approaches
Natural environment
Public health
Resilience
Social Services
Transport (Mobility)
Waste
Water

Description of collaboration

In 2021, Sunderland created the new My Sunderland website, which is a citywide platform to allow partners to publish their data in one place. (<https://www.mysunderland.co.uk/LowCarbon>). The website is interactive and provides regular reporting (including quarterly emissions reports, annual data reports, the city's annual CDP submission and the biannual One Planet City Challenge Strategic Feedback Report), case studies, partners involved, information on how to help and how we can help, information regarding the science of climate change and an events calendar to support awareness raising and engagement activity. The website is regularly updated to provide the latest information, science and events , as well as information regarding how residents can get involved in Low Carbon activity within the city. It also includes a section regarding how residents can get involved in sustainability.

Other entities collaborated with

Please select

Primary entity collaborated with (selection mandatory)

Civil society	Residents/community groups
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Mechanisms used to collaborate

Collaborative initiative
 City business partnership platform
 Knowledge or data sharing
 Reporting of climate and/or environmental data
 Project implementation and management
 Project delivery - Public Private Partnership

Areas collaboration focused on

Emissions reduction
 Transport (Mobility)

Description of collaboration

Sunderland City Council has teamed up with Better Points, an app that tracks travel movements via GPS using smartphones and rewards participants with points for using more sustainable modes of transport like walking, cycling and using public transport as a pilot project. Roughly 800 users have registered for the app and engagement rates have been very high throughout the challenge with an average of 67% of users recording an activity month-on-month. A total of 82,559 trips were recorded over the six-month pilot programme (March – August 2022), of which 71,433 were by active modes. 1,115 trips replaced a solo car journey. The Council recently extended its partnership with Better Points.

In addition, Sunderland City Council collaborated with Nebula Labs and the UK Digital Catapult under its Internet of Things for Local Authorities to pilot a proof-of-concept app to automate travel surveys, by tracking journeys and automatically working out the mode of transport taken by employees. During the pilot, the app gathered over 700 data points and identified journeys correctly to between 80% and 96% accuracy.

As part of the UK Digital Catapult's Internet of Things for Local Authorities programme, Sunderland City Council is also collaborating with Nomad Energy Solutions Ltd and BAI Communications to use smart building technology to improve energy efficiency within Council buildings. The proposal began with two test sites at the Council's Evolve and Leechmere buildings and provided short-, medium- and long-term suggestions in the form of a report, and both buildings are experiencing reductions in carbon emissions. The Council and its smart city Joint Venture partner BAI Communications is now working with Nomad Energy Solutions Ltd to form a wider decarbonisation plan for the next phase of the operational estate. This project is discussed in more detail in question 9.1.

Other entities collaborated with

Academia
 Climate initiatives/networks
 Information Technology
 Other, please specify (Transport)

Primary entity collaborated with (selection mandatory)

Civil society	NGO and associations
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Mechanisms used to collaborate

Collaborative initiative
 Knowledge or data sharing
 Capacity development
 Project implementation and management
 Project delivery - Public Private Partnership
 Climate action plan implementation

Areas collaboration focused on

Building and Infrastructure
 Education
 Emissions reduction
 Public health
 Transport (Mobility)

Description of collaboration

Sunderland City Council signed the UK100 pledge in February 2022. This commits us to becoming net zero as a Council by 2030, as well as achieving net zero as a city by 2045.

UK100 supports a range of initiatives for climate action, including the 'Local Climate Engagement' (LCE) programme, which is a partnership with Involve, the Democratic Society, Shared Future and Climate Outreach and is working with local authorities to deliver high-quality public engagement projects on climate policy in a way that benefits both them and their local communities.

In January 2022 the Council's Low Carbon team submitted a successful application to participate in the LCE programme. Sunderland was one of 21 local authorities selected across the two LCE programmes from 75 applications and one of only 5 authorities to be offered in-depth project support.

Sunderland's project is focusing on public engagement around sustainable travel behaviours. The project has provided training to approximately 20 Council and Together for Children colleagues, some virtually and some in person from a range of services areas. Participants have formed 3 focused teams to plan engagement on three separate projects including social prescribing for active travel (which is partly funded by the Healthy Cities Grant), cycleway design to support the Local Cycling and Walking Infrastructure Plan (LCWIP) and home to school transport for SEND children and young people.

Other entities collaborated with

Residents/community groups

Primary entity collaborated with (selection mandatory)

Government/Public body	National government
------------------------	---------------------

Mechanisms used to collaborate

Collaborative initiative
 Capacity development
 Funding (grants)
 Project implementation and management
 Project delivery - Public Private Partnership

Areas collaboration focused on

Building and Infrastructure
 Emissions reduction
 Energy
 Forestry
 Inclusive climate action and/or equity
 Landscape and jurisdictional approaches
 Transport (Mobility)
 Waste

Description of collaboration

Sunderland City Council work collaboratively with partners to secure funding to deliver projects which reduce carbon emissions within the city. Amongst others, recent and current examples of this include:

- Warm Homes Fund Lot 1 (in partnership with Groundwork North East and Citizens Advice Bureau) which aims to deliver 135 all-electric air source heat pumps in low efficiency / low-income private properties that currently have old inefficient electric storage heaters.
- Warm Homes Fund Lot 2 (in partnership with Groundwork North East and Citizens Advice Bureau) which aims to deliver complimentary energy efficiency advice to households .
- Social Housing Decarbonisation Fund Wave 1 (in partnership with Gentoo) which improved the EPC rating of 400 social homes.
- The Levelling Up Fund Round 2 which is supporting the delivery of three rapid charging hubs and for 20 buses operating in Sunderland to be converted to electric.
- Local Electric Vehicle Infrastructure (LEVI) funding to support delivery of 219 fast charging outlets for residents at Riverside Sunderland.
- The Capability Fund which has been used for cycle training for 86 people at Thompson Park in July / August 2022.
- The Healthy Cities Grant which has been used to continue Sunderland's 'Park that Bike' scheme which allows organisations to apply for free cycle parking facilities , as well as the LCE social prescribing project referenced earlier in this question.
- Trees for Climate funding to support the delivery of the North East Community Forest, which aims to plant 500ha in the North East between 2021-2025 and double tree canopy cover in the region.
- National Heritage Lottery Funding to support the development of the 'Link Together' project, focussing on the restoration of green spaces across 13 sites in the Coalfield area of the city .
- Food for the Planet grant to develop a sustainable food charter for the city.
- Funding secured from North Rhine Westphalia and Stadt Essen to deliver the Citizens' Low Carbon Innovation for Mutual Action in Twin Cities (CLIMATE) project, bringing together young people from Sunderland College and counterparts in Theodore Heuss Gymnasium.

Other entities collaborated with

National government
 Regional government
 Neighboring local government
 Academia
 Climate initiatives/networks
 Residents/community groups
 Vulnerable population groups
 NGO and associations
 Education sector
 Energy
 Food & Beverage
 Real Estate
 Transport

Primary entity collaborated with (selection mandatory)

Civil society	Other, please specify (Green Champions)
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Mechanisms used to collaborate

Knowledge or data sharing
 Capacity development
 Project implementation and management

Areas collaboration focused on

Adaptation
 Agriculture
 Building and Infrastructure
 Ecosystem restoration
 Education
 Emissions reduction
 Energy
 Food
 Forestry
 Industry

Landscape and jurisdictional approaches
Natural environment
Public health
Resilience
Social Services
Transport (Mobility)
Waste
Water

Description of collaboration

In March 2023 Sunderland City Council launched a new Green Champions program for employees.

Early activities have included recruitment of interested volunteers at three staff events, where the Council's and city's Low Carbon ambitions, framework and plans have been shared as well as information on specific Low Carbon topics (Active and sustainable transport in May and July 2023 and Reducing Consumption and Waste with links to Refill Sunderland and Plastic free month in July).

Other staff have been recruited through participation in the Sunderland 60 Common Purpose Legacy project, where young Council employees were invited to become Green Champions for their work areas. Regular information is now featured on the intranet, staff social media channels and platforms and in newsletters and Teams messaging.

A Network has been created to run concurrently, for tenants of the City Hall Building, led by Knight Frank. The Green Champions Tenants meetings are a vehicle to share best practice and lead on all things sustainable.

In March 2023 the Council's Assistant Director for Economic Regeneration delivered a presentation to all employees via a Chief Executive briefing on the city's Low Carbon journey so far, ending this session by encouraging further take up of Green Champion Volunteers. A second presentation was delivered with the Council's Senior Management Team in April 2023.

Other entities collaborated with

Please select

Primary entity collaborated with (selection mandatory)

Government/Public body	Local government within country/area
------------------------	--------------------------------------

Mechanisms used to collaborate

Collaborative initiative
Knowledge or data sharing
Multi-jurisdictional regional collaboratives
Funding (grants)
Project implementation and management
Climate action plan implementation

Areas collaboration focused on

Adaptation
Building and Infrastructure
Ecosystem restoration
Education
Emissions reduction
Energy
Finance
Food
Forestry
Industry
Landscape and jurisdictional approaches
Natural environment
Transport (Mobility)
Waste
Water

Description of collaboration

Sunderland City Council (in partnership with German twin town Essen) secured funding from North Rhine Westphalia and Stadt Essen and provided match funding to deliver the Citizens' Low Carbon Innovation for Mutual Action in Twin CitiEs (CLIMATE) project. This brought together groups of young people from Sunderland College (students in Travel and Tourism as well as Green Ambassadors) to work with counterparts in Theodore Heuss Gymnasium. Initial work was delivered virtually, including joint online sessions of both groups of learners, a webinar and joint project work. The project culminated (June 2022) in a visit of the Sunderland group, travelling sustainably overland to reach Germany, where they then spent time working with the Essen group of young people. Their visit included meeting with the European Green Capital Agency, a reception at the Town Hall of Essen, visiting the THG school, exploring local sustainable sites in Essen including an energy exhibition, and joint student-led projects.

Sunderland partners and Essen (European Green Capital Agency and Stadt Essen) continued their cooperation in the field of climate action through Engagement Global's 'Urban Diplomacy Exchange' programme. One of several Anglo-German partnerships to be selected and funded to explore the Sustainable Development Goals, Sunderland and Essen colleagues took part in online joint sessions (Dec 2022 onwards) to explore how to use their twinning relationship to work towards several of the SDGs (notably 11, 16 and 17). The cities then participated in a joint conference (June 2023) where they explored environmental and social sustainability with other partnerships and shared good practice in this area to date as well as future plans for the partnership. Sunderland also hosted an Essen colleague for an in-depth visit which focused on showcasing some of Sunderland's activity in this field (June 2023, including work through the Sunderland Good Food Partnership; Sunderland's citywide partnership, the 2030 Shadow Board and citywide Low Carbon Framework; community cohesion, integration, equality and diversity; and green infrastructure, particularly around tree planting). Following the visit, Sunderland has participated in Essen's 'Sunderland Roundtable' and agreed plans for continued cooperation between Sunderland City Council's Low Carbon team and officers in Stadt Essen and Essen's European Green Capital Agency.

Other entities collaborated with

Local government outside of country/area
Academia
Climate initiatives/networks

Primary entity collaborated with (selection mandatory)

Civil society	NGO and associations
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Mechanisms used to collaborate

Knowledge or data sharing
Capacity development
Labour market training initiatives

Areas collaboration focused on

Building and Infrastructure
Education
Emissions reduction
Energy
Forestry
Natural environment
Transport (Mobility)
Waste

Description of collaboration

The Sunderland 60 Legacy programme which is delivered by the Council in collaboration with Common Purpose, a non-profit organisation which delivers leadership programmes in over 200 cities globally. Sunderland Legacy brings together 18-25 year olds from a range of employers and education providers across the city as part of an international leadership programme to work on how to make Sunderland a cleaner, greener city for generations to come.

The most recent Sunderland 60 event in April 2023, 55 young people were invited to participate from organisations including Together for Children, Sunderland Care & Support, Gentoo, Sunderland College, the University of Sunderland, Sunderland City Council, many of whom sponsored the programme, alongside businesses Arctic Wolf and Ashmore Consultants. Participants received training and sessions from Common Purpose as well as experts in related fields locally, in addition to participating in 4 immersion visits with city partners. They were then given the opportunity to present their own ideas to senior officials on how they would recommend reducing carbon footprints and helping the city achieve its low carbon ambitions – these resulted in a handful of strong proposals for Sunderland.

For the first Sunderland 60 event in June 2022, which saw young people develop 6 strong proposals for Sunderland. Two of the young people attended the city's next 2030 Shadow Board to share their experience and the proposed ideas they had developed . The 6 proposals included:

- Develop an app, to enable residents to receive points for sustainable behaviour.
- Borough wide communication campaign to increase recycling rate and incentives to make people recycle more on the streets.
- Work with schools to develop a supplemental curriculum of 'Green Civics', aiming to educate young people basics of recycling, benefits of rewilding, and develop passions for gardening and/or agriculture.
- Organise sustainability education workshops for SMEs.
- A big clean up event to help reduce litter.
- A new agreement where every new house built in the city needs to lead to 10 new trees planted, either by a housing development company or an individual.

Proposals from the second cohort included:

- Mapping of green spaces for allotment and community/school growing use alongside self-sufficiency training and linking to food banks
- Sunderland Pride – using volunteer days and training volunteers to offer, e.g. energy advice, signposting to retrofitting schemes etc
- Education on waste and recycling – attractive designed bins with clear labelling and training and fun elements, e.g. bottle cap spinning tools for kids
- Machines to process recycling and reward with food vouchers
- Pop-up art installation made from waste following litter picks as an awareness raising tool with recycling advice

Other entities collaborated with

Academia
Climate initiatives/networks
Vulnerable population groups
NGO and associations
Education sector
Health Care
Real Estate

Assessment

1. Climate Risk and Vulnerability

(1.1) Has a climate risk and vulnerability assessment been undertaken for your jurisdiction? If not, please indicate why.

Yes, a climate risk and vulnerability assessment has been undertaken

(1.1a) Provide details on your climate risk and vulnerability assessment.

Assessment attachment and/or direct link^

https://sunderland.gov.uk/media/22850/AD-25-Strategic-Flood-Risk-Assessment-Level-1/pdf/AD.25_Strategic_Flood_Risk_Assessment_Level_1.pdf?m=637431304023570000
AD.25_Strategic_Flood_Risk_Assessment_Level_1 (1).pdf

Confirm attachment/link provided to assessment (selection mandatory)

The assessment has been attached and can be accessed (unrestricted) on the link provided

Boundary of assessment relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Year of publication or approval^

2020

Factors considered in assessment

Assessment considers vulnerable populations

Assessment considers water security

Assessment considers nature

Assessment considers transition risks

Assessment includes a high-emissions scenario (i.e., RCP 8.5)

Identified hazards have been incorporated into the jurisdictions overall risk management framework

A process has been established for prioritizing identified hazards

A process has been established to update the assessment at least every five years

Primary author(s) of assessment^

Consultant

Please explain

This Level 1 Strategic Flood Risk Assessment (SFRA) uses up-to-date flood risk information together with the most current flood risk and planning policy available from the National Planning Policy Framework and Flood Risk and Coastal Change Practice Planning Guidance.

The Level 1 SFRA focusses on collecting readily available flood risk information from stakeholders, the aim being to help identify the number and spatial distribution of flood risk sources present throughout the area to inform the application of the Sequential Test.

Sunderland City Council (SCC) require this Level 1 SFRA to initiate the sequential risk-based approach to the allocation of land for development. This will help to inform and provide the evidence base for the Local Planning Authority's (LPA) Local Development Plan).

Assessment attachment and/or direct link^

<https://www.gateshead.gov.uk/media/2879/Northumbria-community-risk-register-booklet/pdf/Northumbria-Community-Risk-Register-version-6.pdf?m=636409117667530000>

Northumbria_Community-Risk-Register-2021-2022.pdf

Confirm attachment/link provided to assessment (selection mandatory)

The assessment has been attached and can be accessed (unrestricted) on the link provided

Boundary of assessment relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (The Northumbria Community Risk Register covers Sunderland as well as Northumberland, Newcastle, Gateshead, Durham, South Tyneside and North Tyneside)

Year of publication or approval^

2021

Factors considered in assessment

Assessment considers vulnerable populations

Assessment considers nature

Identified hazards have been incorporated into the jurisdictions overall risk management framework

Primary author(s) of assessment^

Regional/ state/ provincial government

Please explain

The Northumbria Risk Register is prepared by the Northumbria Local Resilience Forum and provides risk information on emergencies that could happen within the Northumbria area, together with an assessment of how likely they are to happen and the impacts if they do.

The Risk Register identifies:

1. Emergency Management Steps
2. Northumbria's Top Risks
3. What you can do to be prepared in an emergency
4. How your local community can be prepared
5. Business Continuity Management
6. Further Information

Assessment attachment and/or direct link^

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1047003/climate-change-risk-assessment-2022.pdf

climate-change-risk-assessment-2022.pdf

Confirm attachment/link provided to assessment (selection mandatory)

The assessment has been attached and can be accessed (unrestricted) on the link provided

Boundary of assessment relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (The UK Climate Change Risk Assessment covers the entire UK.)

Year of publication or approval^

2022

Factors considered in assessment

Assessment considers vulnerable populations

Assessment considers water security

Assessment considers nature

Assessment considers transition risks

Assessment includes a high-emissions scenario (i.e., RCP 8.5)

Identified hazards have been incorporated into the jurisdictions overall risk management framework

A process has been established for prioritizing identified hazards
A process has been established to update the assessment at least every five years

Primary author(s) of assessment[^]

Consultant

Please explain

The Climate Change Act requires the UK Government to compile every five years its assessments of the risks and opportunities arising from the UK from climate change.

This report aims to assess the urgency of further action to tackle current and future risks, and realise opportunities, arising for the UK from climate change.

Assessment attachment and/or direct link[^]

[https://www.google.com/url?](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj1sILD2oXyAhWMgVwKHQ7LB44QFjABegQIERAD&url=https%3A%2F%2Fwww.hartlepool.gov.uk%2Fdownload%2Fdownloads%2Fid%2F3015%2Fhlp05_4_a_summary_of_climate_change_risks_for_north_east_england_2012pdf.pdf&usg=AOvVaw3sJ2t-WYUaUcGLa6On20dp)

[sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj1sILD2oXyAhWMgVwKHQ7LB44QFjABegQIERAD&url=https%3A%2F%2Fwww.hartlepool.gov.uk%2Fdownload%2Fdownloads%2Fid%2F3015%2Fhlp05_4_a_summary_of_climate_change_risks_for_north_east_england_2012pdf.pdf&usg=AOvVaw3sJ2t-WYUaUcGLa6On20dp](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwj1sILD2oXyAhWMgVwKHQ7LB44QFjABegQIERAD&url=https%3A%2F%2Fwww.hartlepool.gov.uk%2Fdownload%2Fdownloads%2Fid%2F3015%2Fhlp05_4_a_summary_of_climate_change_risks_for_north_east_england_2012pdf.pdf&usg=AOvVaw3sJ2t-WYUaUcGLa6On20dp)

A Summary of Climate Change Risks for North East England.pdf

A Summary of Climate Change Risks for North East England.pdf

Confirm attachment/link provided to assessment (selection mandatory)

The assessment has been attached and can be accessed (unrestricted) on the link provided

Boundary of assessment relative to jurisdiction boundary[^]

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (This report covers the whole of North East England - including Northumberland, Tyne and Wear, County Durham and the Tees Valley.)

Year of publication or approval[^]

2012

Factors considered in assessment

Assessment considers vulnerable populations

Assessment considers water security

Assessment considers nature

Assessment includes a high-emissions scenario (i.e., RCP 8.5)

Identified hazards have been incorporated into the jurisdictions overall risk management framework

Primary author(s) of assessment[^]

Consultant

Please explain

The UK Climate Change Risk Assessment (CCRA) is an independent research project, funded by UK Government and Devolved Governments that analyses the main risks and opportunities to the UK, arising from climate change over the coming years. It provides the underpinning evidence to inform discussions on adaptation actions needed in such areas as infrastructure, health, environment and business.

This report coincides with the UK CCRA, applying its context to the North East of England, to provide an understanding of the key threats and opportunities associated with climate change in the North East England region.

(1.2) Provide details on the most significant climate hazards faced by your jurisdiction.

Climate-related hazards[^]

Extreme cold

Vulnerable population groups most exposed

Children and youth

Elderly

Vulnerable health groups

Low-income households

Outdoor workers

Frontline workers

Sectors most exposed[^]

Agriculture

Water supply

Waste management

Conservation

Construction

Transportation and storage

Accommodation and food service activities

Education

Human health and social work activities

Describe the impacts on vulnerable populations and sectors[^]

Health risks include high blood pressure, colds, heart attacks, pneumonia and mental health impacts. Those with existing health conditions are especially vulnerable to the cold, including people with circulatory problems, diabetes, arthritis, asthma, depression and anxiety. People with certain disabilities, children and the elderly also fall into higher risk categories.

Low-income households are at risk of fuel poverty and likely to live in poorly insulated housing, which can lead to increased cold-related illnesses. Fuel poverty rates are also increasing due to the current cost-of-living. Cold weather can also exacerbate social isolation and loneliness. Due to the impact on health, cold waves will increase pressure on healthcare. According to the Office for Health Improvement & Disparities, 21.5% of winter deaths in England are attributable to the coldest quarter of housing.

Outdoor workers exposed to extreme cold can become ill or may lose income if conditions are deemed too cold to work.

Cold weather disrupts transport infrastructure. This impacts council work such as waste collection and winter gritting as well as mobility, including travelling to work and school.

Cold weather can decrease agricultural productivity, with lower crop yields and danger to livestock.

Wildlife may struggle to adapt quick enough to the changing conditions, resulting in biodiversity loss. Impacts will be felt throughout food chains, damaging ecosystems.

Migration patterns will change as animals seek warmer temperatures.

In 2018 Anticyclone Hartmut brought cold temperatures and heavy snowfall to the UK. There were 17 UK deaths due to the mixed effects of Anticyclone Hartmut and Storm Emma. Many schools in Sunderland were closed temporarily. Anticyclone Hartmut, and subsequent weather events, also significantly damaged Sunderland's coastline, including at the Old North Pier (£1.25m), Stonehill Wall (£1.5m) and New South Pier (£350k). More recently in February 2023, Storm Otto caused the Household Waste and Recycling Centre at Pallion to close and 19,000 homes were affected by power cuts.

The frequency of cold waves is likely to increase in the future, increasing health risks for vulnerable Sunderland residents and the economy .

Proportion of the population exposed to the hazard

90-100%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium

Current magnitude of impact of hazard^

Medium

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

Extreme heat

Vulnerable population groups most exposed

Children and youth

Elderly

Low-income households

Outdoor workers

Frontline workers

Sectors most exposed^

Agriculture

Electricity, gas, steam and air conditioning supply

Water supply

Conservation

Human health and social work activities

Describe the impacts on vulnerable populations and sectors^

The Northumbria LRF Community Risk Register lists Adverse Weather, including heat waves and consequent failure of essential services as a top risk. The frequency of such events is likely to increase in the future, increasing the health risks for people in Sunderland, particularly the vulnerable populations in the city, as well as well as posing a potential risk to the local economy.

Extreme heat events can be dangerous to health – even fatal. These events result in increased hospital admissions for heat-related illness, as well as cardiovascular and respiratory disorders. Extreme heat events can trigger a variety of heat stress conditions, such as heat stroke. Heat stroke is the most serious heat-related disorder. It occurs when the body becomes unable to control its temperature. Body temperature rises rapidly, the sweating mechanism fails, and the body cannot cool down. This condition can cause death or permanent disability if emergency treatment is not given. Small children, the elderly, and certain other groups including people with chronic diseases, low-income populations, and outdoor workers have higher risk for heat-related illness. Higher temperatures and respiratory problems are also linked. One reason is because higher temperatures contribute to the build-up of harmful air pollutants.

Extreme heat affects crop growth. High air temperatures reduce the growth of shoots, resulting in lower crop yields. Higher temperatures also reduce yields of desirable crops and increase growth of weeds and pests. Heat can also increase the risk of drought.

Electricity usage will increase with greater use of air conditioning, which could potentially lead to shortages and price increases.

Proportion of the population exposed to the hazard

90-100%

Did this hazard significantly impact your jurisdiction before this reporting year?

No

Current probability of hazard^

Low

Current magnitude of impact of hazard^

Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

River flooding

Vulnerable population groups most exposed

Elderly
Vulnerable health groups
Low-income households

Sectors most exposed^

Agriculture
Forestry
Conservation
Transportation and storage
Financial and insurance activities
Real estate activities

Describe the impacts on vulnerable populations and sectors^

The elderly and vulnerable health groups are more likely to be less mobile, therefore are likely to be less able to reach a safe location in the event of a flood.

Low-income households are more likely to live in high-risk flood areas, as housing is cheaper. As river flooding increases, the homes at risk will decrease in value and be more difficult to sell. As a result, families in low-income households may not have the option to move to safer housing. In addition to this, insurance premiums on high-risk housing will also be more expensive, or not offered by some insurance companies, leading to increased expenditure or no insurance cover at all. Currently, there are 15 properties (approx. 32 people) at risk of river flooding in the Fatfield area in Washington.

Flooding may cause direct damage to trees and vegetation by changing soil conditions, sedimentation and physical damage, as well as weakening trees, making them more susceptible to damage from insects and diseases.

The transport sector will suffer disruption as roads become impassable. Flooding can cause damage to communication infrastructure, which can leave people isolated, especially vulnerable people.

River flooding is extremely costly to agricultural land as it causes delays and reductions in crop harvest. Flooded agricultural land is unsuitable for planting. River water will also contaminate crops making them unsuitable for human consumption, as well as increasing runoff and soil depletion. Rapid river flooding can cut off access to livestock and mean they can't get to safe areas or food. Livestock can experience stress in the event of a flood meaning cows and ewes are more likely to give birth early. Stress and poor access to feed will increase the risk of metabolic diseases such as grass tetany, milk fever and ketosis, as well as an increased risk of parasites. Livestock that have been standing in deep flood water for prolonged periods in cold conditions may also be at risk of hypothermia. Insurance premiums for farmers will also increase in areas at high risk.

Proportion of the population exposed to the hazard

<10%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium

Current magnitude of impact of hazard^

Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

Coastal flooding (incl. sea level rise)

Vulnerable population groups most exposed

Elderly
Vulnerable health groups
Low-income households

Sectors most exposed^

Agriculture
Forestry
Transportation and storage
Financial and insurance activities
Real estate activities
Other, please specify (Port of Sunderland)

Describe the impacts on vulnerable populations and sectors^

The elderly and vulnerable health groups are more likely to be less mobile, therefore are likely to be less able to reach a safe location, in the event of a flood.

Low-income households are more likely to live in high-risk flood areas, as housing is cheaper. As coastal flooding increases, the houses at risk will decrease in value, and be more difficult to sell. As a result, families in low-income households may not have the option to move to safer housing. In addition to this, insurance premiums on high-risk housing will also be more expensive, or not offered by some insurance companies, leading to increased expenditure or no insurance cover at all.

Flooding may cause direct damage to trees and vegetation by changing soil conditions, sedimentation and physical damage, as well as weakening trees, making them more susceptible to damage from insects and diseases.

The transport sector will suffer disruption as roads become impassable. Flooding can cause damage to communication infrastructure, which can leave people isolated, especially vulnerable people.

Currently there are 3 properties (approx. 6 people) at the coast at Marine Walk in Roker at risk of flooding.

The Port of Sunderland is at risk to coastal flooding which would cause a disruption to operations and potential damage to infrastructure, resulting in economic losses.

Proportion of the population exposed to the hazard

<10%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium Low

Current magnitude of impact of hazard^

Medium Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

Other, please specify (Surface water Flooding)

Vulnerable population groups most exposed

Elderly

Vulnerable health groups

Low-income households

Sectors most exposed^

Forestry

Sewerage, waste management and remediation activities

Conservation

Construction

Transportation and storage

Financial and insurance activities

Real estate activities

Education

Describe the impacts on vulnerable populations and sectors^

The elderly are more likely to be less mobile, therefore are likely to be less able to reach a safe location, in the event of a flood.

Low-income households are more likely to live in high-risk flood areas, as housing is cheaper. As surface water flooding increases, homes at risk will decrease in value, and be more difficult to sell. As a result, families in low-income households may not have the option to move to safer housing. In addition to this, insurance premiums on high-risk housing will also be more expensive, or not offered by some insurance companies, leading to increased expenditure or no insurance cover at all.

Flooding may cause direct damage to trees and vegetation by changing soil conditions, sedimentation and physical damage, as well as weakening trees, making them more susceptible to damage from insects and diseases. This will also hinder conservation efforts and become a greater concern as Sunderland increases its tree cover through NE Community Forest development . More information regarding tree planting in Sunderland can be found in question 9.1.

The transport sector will suffer disruption as roads become impassable. Flooding can cause damage to communication infrastructure, which can leave people isolated, especially vulnerable people.

If sewers flood, they can overflow with raw sewerage causing health hazards and contamination.

Currently there are 2,760 properties (approx. 5,520 people) across Sunderland at high-risk of surface water flooding. Sunderland reduced the vulnerability of 37 high-risk properties in the during the 2022-23 financial year .

Proportion of the population exposed to the hazard

<10%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium Low

Current magnitude of impact of hazard^

Medium Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Short-term (by 2025)

Climate-related hazards^

Storm

Vulnerable population groups most exposed

Children and youth
 Elderly
 Marginalized/minority communities
 Low-income households
 Outdoor workers
 Frontline workers

Sectors most exposed^

Agriculture
 Forestry
 Electricity, gas, steam and air conditioning supply
 Conservation
 Construction
 Transportation and storage
 Information and communication
 Financial and insurance activities
 Education

Describe the impacts on vulnerable populations and sectors^

Storms disrupt and damage transport infrastructure and roads may become impassable, making it more difficult for travel to school and work and for Council and other services to be carried out. In the case of extreme storms, schools may close, causing disruption to education.

Damage to buildings, power networks and flooding caused by heavy precipitation results in people needing to find safer temporary accommodation. This particularly affects the elderly who may be more vulnerable when moving from their immediate networks and potentially becoming isolated. Marginalised, minority communities and low-income households typically live in poorer housing, which is more likely to be susceptible to storm damage. Furthermore, if the repair costs after a storm are unaffordable, housing may be unsafe.

During storms, outdoor workers will be unable to work due to safety concerns, potentially resulting in loss of income and are more likely to be injured from flying debris. Frontline healthcare workers will experience an increased number of emergencies from storm related incidents, increasing pressure on the healthcare system.

During storms, construction works cannot take place, potentially resulting in a loss of business revenue or staff income. During storm Arwen, 28 properties in Sunderland were structurally damaged and housing group Gentoo also faced costs of up to £2 million to repair damage. Insurance pay-outs also significantly increase, in turn, increasing future insurance premiums. Storms also cause damage to communication infrastructure, which can leave people isolated.

Forestry is impacted by storms with greater damage to trees and increased soil erosion. In November 2021, Storm Arwen had a negative impact on conservation in Sunderland, as many of the trees damaged were saplings that had been planted to increase biodiversity.

Storms negatively impact the agricultural sector through soil erosion, which can seriously affect farming productivity. Degraded land is less able to retain water and increases the risk of flooding when heavy rainfall occurs due to greater surface run-off. Livestock may also become injured, and experience increased stress.

Storms can also damage power supply. Damage to electricity infrastructure from Storm Arwen resulted in 240,000 UK residents left without power, many of which had to wait weeks to be reconnected.

Proportion of the population exposed to the hazard

<10%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium High

Current magnitude of impact of hazard^

Medium

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

Extreme wind

Vulnerable population groups most exposed

Children and youth
 Elderly
 Low-income households
 Outdoor workers
 Frontline workers

Sectors most exposed^

Agriculture
 Forestry
 Electricity, gas, steam and air conditioning supply
 Conservation
 Construction
 Transportation and storage
 Information and communication
 Financial and insurance activities

Describe the impacts on vulnerable populations and sectors^

Children, young people and the elderly are more at risk from injury from strong winds. Low-income households are more likely to live in less well-maintained accommodation, making them at higher risk of injury. Increased costs from housing repairs may also be unaffordable, resulting in unsafe accommodation. Strong winds make it unsafe for outdoor workers, making them more at risk to injury from flying debris. Frontline healthcare workers will experience an increased number of emergencies from injuries, increasing pressure on the healthcare system.

Strong winds cause damage to electricity infrastructure, leaving people without power. During strong winds, construction works are not able to take place, potentially resulting in a loss of revenue. Furthermore, damage to buildings can increase pressure on the construction sector with an influx of demand. Insurance pay-outs significantly increase as a result of greater number of claims will, in turn, increase future insurance premiums. During storm Malik in 2022, 30000 people connected to the Northern Powergrid were without power.

The transport sector will suffer disruption as roads become impassable with fallen trees and debris. Strong winds cause damage to communication infrastructure, which can leave people isolated, especially vulnerable people. During Storm Malik in 2022, the entire Tyne and Wear Metro had to be shut down

Strong winds damage crops, resulting in lower crop yields, and will increase stress in livestock, resulting in lower productivity. Forestry and conservation areas are impacted by strong winds with damage and uprooting of trees. During Storm Arwen in November 2021, winds reached nearly 100mph, damaging a number of trees in Sunderland.

Proportion of the population exposed to the hazard

90-100%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium Low

Current magnitude of impact of hazard^

Medium Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Short-term (by 2025)

Climate-related hazards^

Heavy precipitation

Vulnerable population groups most exposed

Outdoor workers

Sectors most exposed^

- Agriculture
- Forestry
- Conservation
- Construction
- Transportation and storage

Describe the impacts on vulnerable populations and sectors^

Heavy precipitation often means outdoor workers are unable to work, potentially resulting in a loss of income.

Forestry and conservation areas are impacted as soil saturation and increased run off impacts the stability of vegetation. Construction can be disrupted causing delays to projects and an economic loss. Transport networks become unsafe due to flooded roads and rail networks, as well as poor visibility and slippery conditions.

Heavy precipitation negatively impacts the agricultural sector through soil erosion and saturation, which can seriously affect farming productivity. Degraded land is less able to retain water and increases the risk of flooding when heavy rainfall occurs due to greater surface run-off. Livestock may also become injured and stressed.

Proportion of the population exposed to the hazard

<10%

Did this hazard significantly impact your jurisdiction before this reporting year?

No

Current probability of hazard^

Low

Current magnitude of impact of hazard^

Low

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Short-term (by 2025)

Climate-related hazards^

Biodiversity loss

Vulnerable population groups most exposed

Other, please specify (All - continued biodiversity loss = ecosystem collapse)

Sectors most exposed^

- Agriculture
- Forestry
- Fishing
- Water supply
- Conservation
- Other, please specify (public health; food supply)

Describe the impacts on vulnerable populations and sectors^

Biodiversity loss threatens food production and agricultural resilience to shocks and stresses that can lead to crop failure. Loss of biodiversity means that crops are more vulnerable to pests and diseases.

Biodiversity loss hinders forest ecosystem functioning and the provision of ecosystem services .

The loss of marine biodiversity is weakening the ocean ecosystem and its ability to withstand stresses, to adapt to climate change and to play its role as a global ecological and climate regulator. This is strongly influenced by plastic pollution which can have toxic effects on fish and other aquatic life. As a result, fish stocks are depleted and a smaller variety of fish can be fished. This impacts the profitability of fishing, as well as fish available for consumption.

Conservation efforts become more challenging as biodiversity loss reduces an ecosystem’s productivity and lowers the quality of the ecosystem’s services, including; maintaining the soil, purifying water and supplying food and shade. This will result in a further loss of biodiversity.

Biodiversity Net Gain is being introduced as part of the Environment Act and there will be mandatory net gain of 10% minimum on all new developments. The Council is working with neighbouring local authorities to prepare a Biodiversity Supplementary Planning Document and a Local Nature Recovery Strategy to guide how biodiversity net gain will be delivered within Sunderland

Proportion of the population exposed to the hazard

90-100%

Did this hazard significantly impact your jurisdiction before this reporting year?

Do not know

Current probability of hazard^

High

Current magnitude of impact of hazard^

High

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

(1.3) Identify and describe the most significant factors impacting on your jurisdiction’s ability to adapt to climate change and indicate how those factors either support or challenge this ability.

Factors that affect ability to adapt^	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction (selections mandatory) ^	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction^		
Access to basic services	<table border="1"> <tr> <td>Supports</td> <td>Moderately supports</td> </tr> </table>	Supports	Moderately supports	Overall, Sunderland has adequate access to basic services. This includes good shelter, health and care, infrastructure, transport, power and water supply. Gentoo (Sunderland’s largest social housing provider), health and care services, Council infrastructure and transport teams, businesses, the National Grid, and Northumbrian Water are already planning to mitigate and adapt to climate change within the city
Supports	Moderately supports			
Access to education	<table border="1"> <tr> <td>Supports</td> <td>Significantly supports</td> </tr> </table>	Supports	Significantly supports	<p>Sunderland currently has 83 primary schools (including maintained schools, academies and faith schools) catering for ~24,000 pupils, as well as 3 Voluntary Aided Roman Catholic Secondary Schools, 1 Voluntary Aided Church of England Academy, 14 other Academies and 2 Free Schools, serving ~15,500 pupils. There are 3 Primary Special Schools and 3 Secondary Special Schools within the city, which cater for children with special educational need as well as a Pupil Referral Unit to ensure all young people have access to education.</p> <p>Sunderland City Council signpost schools to grants such as the Queen’s Green Canopy tree planting rewilding programme and share regular information on sustainability-related events and initiatives. Together for Children and the Council work closely together to offer opportunities to all. Sunderland has this year recruited the city’s first Associate School Improvement Advisors (ASiAs) who will specialise in sustainable education and be available to support schools with their curriculum activities. As part of the work commissioned from OASES (autumn 2022 – summer 2024) to establish Climate Friendly Schools, the ASiAs will receive training to develop their ability to support schools long-term and have been participating alongside other schools in network meetings and development of the WearSustainable resources toolkit, lesson plans, loans box and trails. In autumn 2021 the City Council launched and funded some COP26 grants which saw 6 secondary schools and 2 primary schools design and deliver a range of carbon-cutting initiatives, from planting trees to creating orchards, reducing single-use plastics and harvesting willow.</p> <p>The Council’s Public Health team, Low Carbon team, Change 4 Life team and school catering service are collaborating to support the city-wide Food and Nutrition Charter mark, as an element of the Sunderland Healthy Schools Award (https://www.togetherforchildren.org.uk/article/21243/Sunderland-Healthy-Schools-Award). Any Sunderland education setting can apply to the Bronze level, which was rolled out in 2021. There is significant focus on environmental sustainability including plant-based and planet-friendly diets, waste and seasonal eating. 5 schools have been accredited at bronze level. The silver level will be developed for the 2023/24 academic year, with the gold level to follow in 2024/25.</p>
Supports	Significantly supports			

Factors that affect ability to adapt [^]	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction (selections mandatory) [^]	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction [^]		
Access to education	<table border="1"> <tr> <td data-bbox="215 280 263 324">Supports</td> <td data-bbox="263 280 352 324">Significantly supports</td> </tr> </table>	Supports	Significantly supports	<p>The Climate Commission for UK Higher and Further Education is in place to catalyse action to create real impact and drive change within College and University education.</p> <p>Sunderland College provides further and higher education courses to approximately 11,100 students. As well as having developed their own Low Carbon Action Plan in 2022 and greening their own operations and curricula (e.g., travel and transport students working on sustainable and virtual travel options; introduction of a pollinator and produce garden on City Campus; food waste minimisation strategies being taken forward for catering courses etc.) Sunderland College provides significant opportunity for learners to be involved in sustainability activities, including as Green Champions. Sunderland University provides undergraduate and postgraduate degree courses to students across three campuses in Sunderland, London and Hong Kong. As of 2022/23 there were 25,624 students at Sunderland University with 12,511 studying at Sunderland Campus. As well as signing off their own Low Carbon Action Plan this year, which includes a commitment to a 2040 net zero target to align with the City's low carbon aims, the University provides opportunities for students to take part in activities including the Student Engagement Sustainability Group and the Student Union's Environmental Society and in 2022 the University and City Council worked in partnership to develop opportunities for artistic residencies via the Faculty for Arts and Creative Industries within climate-relevant settings, locations and activities within the city for those studying Creative Writing and Photography. Both Sunderland College and the University of Sunderland are sponsors of the Sunderland 60 Common Purpose Legacy programme. The college and university also have representation on the EGS group, including students who are Green Ambassadors, members of the Student Council, as well as the Student President.</p>
Supports	Significantly supports			
Access to healthcare	<table border="1"> <tr> <td data-bbox="215 586 263 631">Supports</td> <td data-bbox="263 586 352 631">Significantly supports</td> </tr> </table>	Supports	Significantly supports	<p>The UK National Health Service (NHS) ensures that every citizen in the UK has access to medical and health care services without charge. Therefore, Sunderland's residents have universal access to treatment or support including where this is caused by climate change induced ill-health.</p> <p>The North East and North Cumbria Integrated Commissioning Board (ICB – which took over responsibility from NHS Sunderland Clinical Commissioning Group in July 2022) plans and buys local NHS care and services to meet the needs of 280,000 people and 53 GP practices, split by the areas of Coalfield, Sunderland East, Sunderland North, Sunderland West, and Washington. The city has a handful of primary care centres providing urgent and primary care including Washington, Bunny Hill, Houghton, Pallion and Grindon Lane. South Tyneside & Sunderland NHS Foundation Trust also provides a range of community healthcare services, including St Benedict's Hospice & Specialist Palliative Care in Sunderland and operates facilities across the city including the Sunderland Royal Hospital, The Eye Infirmary and The Galleries Health Centre in addition to Monkwearmouth Hospital, which is operated by Cumbria, Northumberland, Tyne & Wear NHS Foundation Trust.</p> <p>The NHS has also published their own climate change mitigation and adaptation plan, aiming to become the world's first national health system to become net-zero, in line with the UK's low carbon targets. South Tyneside & Sunderland NHS Foundation Trust and the Integrated Commissioning Board are part of the 2030 Shadow Board and committed to playing their part in the city's climate change approach. The South Tyneside & Sunderland NHS Foundation Trust's 2022-25 Green Plan is available at https://www.seeitdoitsunderland.co.uk/media/28891/South-Tyneside-and-Sunderland-NHS-Foundation-Trust-Action-Plan/pdf/South_Tyneside_Green_Plan_Final_Version_1_1_1_2_1_1_1.pdf?m=638097161122800000 and the Integrated Commissioning Board's Sustainability Action Plan is available at https://www.seeitdoitsunderland.co.uk/media/28890/Sunderland-Clinical-Commissioning-Group-CCG-Action-Plan/pdf/CCG_Action_Plan_2021.pdf?m=638097159886200000.</p>
Supports	Significantly supports			
Land use planning	<table border="1"> <tr> <td data-bbox="215 996 263 1041">Supports</td> <td data-bbox="263 996 352 1041">Significantly supports</td> </tr> </table>	Supports	Significantly supports	<p>Land use planning in Sunderland accounts for climate change mitigation and adaptation, to help reduce the vulnerability of our residents, environment and economy to the effects of climate change. The Council's Local Plan is informed by a detailed evidence base which includes a Strategic Flood Risk Assessment to ensure that development is directed towards locations which are not at risk of flooding. The Plan has also been informed by a Sustainability Appraisal and Strategic Environmental Assessment, which considered the climate change impacts of all policies. The Council has also prepared a number of site-specific Supplementary Planning Documents (SPDs) for strategic development sites within the city, which provide more detailed guidance on how the sites should be brought forward for development. These SPDs have also taken into consideration climate change mitigation and adaptation as part of their preparation. Wider examples include the city's Local Flood Risk Management Strategy and to a certain extent the city's five Neighbourhood Investment Plans. Of particular note is the Riverside Sunderland SPD which will guide development of a new residential community within Sunderland City Centre alongside a new central business district. Development will be based on low carbon principles and includes an Expo to showcase the homes of the future, which is due to commence in October 2023.</p>
Supports	Significantly supports			
Public health	<table border="1"> <tr> <td data-bbox="215 1236 263 1281">Challenges</td> <td data-bbox="263 1236 352 1281">Moderately challenges</td> </tr> </table>	Challenges	Moderately challenges	<p>The health of people in Sunderland is generally worse than the English national average. According to the UK Indices of Multiple Deprivation, Sunderland is one of the 20% most deprived districts/unitary authorities in England.</p> <p>Life expectancy data from December 2021 shows that life expectancy at birth for males in Sunderland is 76.6 for 2018-20, compared with 77.6 for the North East and 79.4 for England. Life expectancy at birth for females in Sunderland is 80.9 for 2018-20, compared with 81.5 for the North East and 83.1 for England. Whilst average life expectancy at birth had improved for a number of years, the city continues to lag behind the North East and England positions and the people of Sunderland live, on average, shorter lives than the England average. They also live, on average, a greater part of their lives with illness or disability which limits their daily activities. Data from May 2022 for 2018-20 shows that healthy life expectancy for males in Sunderland is 56.1, which is lower than the North East figure of 59.1 and the England figure of 63.1. Healthy life expectancy for females in Sunderland is 56.9, which is lower than the North East figure of 59.7 and the England figure of 63.9.</p> <p>Many residents have underlying health conditions. Due to this, Sunderland has many residents who are vulnerable to climate hazards such as flooding, air pollution, heatwaves, and cold waves.</p>
Challenges	Moderately challenges			
Poverty	<table border="1"> <tr> <td data-bbox="215 1520 263 1565">Challenges</td> <td data-bbox="263 1520 352 1565">Significantly challenges</td> </tr> </table>	Challenges	Significantly challenges	<p>Sunderland's unemployment is 4.7% as of February 2023; and 18,513 households (14.6%) in Sunderland are in fuel poverty as of 2020. 13,756 children in Sunderland live in low-income families as of 2021 and the percentage of school children (including primary and secondary) eligible for free school meals increased by 10% between 2015/16 – 2021/22, from 19.4% to 29.4%. This is higher than the national average in England, which in 2021/22 was 17%. It is likely that Sunderland's position has worsened since 2021 due to the cost-of-living crisis. There is also a high degree of inequality within the city, with significant differences in the quality of life between different wards in the city. For example – in Fulwell 13% of children are living in low-income families compared to 42% in Hendon.</p> <p>Climate change presents numerous issues for Sunderland residents who live in poverty. For example, these citizens may reside in poor quality housing which may be poorly insulated. This makes them more vulnerable to cold waves and poor winter weather, which is likely to increase in frequency, length, and magnitude in the future. Likewise, as the frequency and intensity of flooding events are likely to increase in the future due to climate change, poverty levels may reduce the ability of some residents to obtain adequate insurance. Finally, given current global financial pressures some residents may struggle to make energy efficiency upgrades to their homes and invest in electric vehicles. An important part of mitigating and adapting to climate change is being able to support all our residents who may be impacted.</p>
Challenges	Significantly challenges			

Factors that affect ability to adapt [^]	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction (selections mandatory) [^]	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction [^]		
Community engagement	<table border="1"> <tr> <td data-bbox="215 280 263 313">Supports</td> <td data-bbox="263 280 352 313">Significantly supports</td> </tr> </table>	Supports	Significantly supports	<p>The Council and its partners have identified public engagement as one of its strategic priorities within the Low Carbon Framework to help raise awareness. Reducing carbon emissions is also a key element of the Community Wealth Building charter which anchor organisations across the city are committed to working towards as part of the city's Community Wealth Building Strategy as referenced elsewhere in question 6.0.</p> <p>EGS brings together young people from primary, special, and secondary schools alongside reps from Sunderland Youth Council, young people's minority forums, detached youth work settings, Sunderland College, and the University of Sunderland to provide a forum where young people's opinions on this pressing matter can be heard. The group was developed by young people and is inclusive. Members are supported to meet quarterly and discuss climate action; participate in Low Carbon volunteering opportunities; and discuss the city's plans and feed into these. Members send representation to the city's 2030 Shadow Board and feed into the group discussions.</p> <p>Since launch the EGS group formed its own identity, the young people have shaped their own agenda and meet quarterly to take part in a wide range of activities such as discussions, consultations, co-design and volunteering. This includes visiting a gardening project at St. Peter's 'A Space 2 Grow' site and a group litter pick in March at the seafront. In February, EGS also worked with Together for Children to design a plastic survey for schools and have since launched a poster competition encouraging visitors to not litter at the coast and Seascapes were also invited to discuss single-use plastics at one of their meetings. EGS also raised local food and community growing as a priority for 2030 Shadow Board partners and helped shape Sunderland's Food and Nutrition Charter Mark's silver and gold levels for schools. The group has also organised content on the MySunderland.co.uk website's Low Carbon pages and helped to develop a sustainable travel app. Finally, the group discussed biodiversity with Durham Wildlife Trust.</p>
Supports	Significantly supports			
Access to quality / relevant data	<table border="1"> <tr> <td data-bbox="215 669 263 703">Supports</td> <td data-bbox="263 669 352 703">Somewhat supports</td> </tr> </table>	Supports	Somewhat supports	<p>The Council is working to improve the quality of its environmental datasets for both the Council's operations as well as the city, having recognised the benefits of a data driven approach to tackling climate change. The Council holds good quality data and reports in-line with the Greenhouse Gas Protocol. However, on a citywide level, there is a lag time on several publicly available environmental datasets. This means that it is harder to set useful targets and monitor performance on a citywide level in real time. The Council's most recent annual Low Carbon Report is available at https://www.seeitdoitsunderland.co.uk/media/28480/Carbon-Emissions-Report-21-22/pdf/Carbon_Emissions_Report_21-22_-_Final.pdf?m=638046389614100000.</p>
Supports	Somewhat supports			
Budgetary capacity	<table border="1"> <tr> <td data-bbox="215 810 263 844">Challenges</td> <td data-bbox="263 810 352 844">Significantly challenges</td> </tr> </table>	Challenges	Significantly challenges	<p>There is a limited budget to put in place all appropriate mitigation measures including, but not limited to, the required level of retrofitting and EV infrastructure needed. The Council is heavily reliant on grants provided by central government. Similarly, the budget for adaptation measures is limited.</p> <p>The Council's Low Carbon Team has a dedicated budget to support activity which can reduce emissions. This includes resourcing a strong central team to lead and co-ordinate emissions reduction activity across the Council and with city partners and pilot decarbonisation initiatives.</p>
Challenges	Significantly challenges			
Infrastructure capacity	<table border="1"> <tr> <td data-bbox="215 967 263 1001">Challenges</td> <td data-bbox="263 967 352 1001">Moderately challenges</td> </tr> </table>	Challenges	Moderately challenges	<p>Sunderland currently has some walking and cycling infrastructure. This includes 106 miles of cycle network, 1500 miles of path and 109 miles of public rights of way. Government policy increasingly is asking for segregated cycle lanes. While cycling infrastructure is being scaled up within the city through the LCWIP referenced earlier , there is much additional work to be done.</p>
Challenges	Moderately challenges			
Housing	<table border="1"> <tr> <td data-bbox="215 1090 263 1124">Challenges</td> <td data-bbox="263 1090 352 1124">Significantly challenges</td> </tr> </table>	Challenges	Significantly challenges	<p>According to the UK Green Building Council, 80% of the buildings that will exist in the UK in 2050 have already been built. They were built at a time when climate change and energy considerations were a lower priority. Existing buildings typically have a large carbon footprint due to the energy required to heat them. Adapting homes to be more energy efficient and resilient to climate change will improve living conditions, reduce energy demand, reduce fuel costs, improve health and wellbeing of residents and help minimise incidents of fuel poverty in the city.</p> <p>The average EPC rating of Sunderland homes is currently D61, which is slightly worse than the national average for England of D66. There are 18,000 homes in Sunderland with E, F or G EPC ratings, indicating low energy efficiency levels. These properties are a priority for retrofitting. There are also 37,000 properties in Sunderland without a registered EPC, making it difficult to measure the scale of the retrofit challenge. Complete decarbonisation of all homes in Sunderland would cost roughly £4.6 billion.</p> <p>There are currently relatively low levels of domestic and non-domestic retrofitting taking place in the city, other than by the Council and registered housing providers, such as Gentoo and a handful of proactive private homeowners. This is partly due to a lack of knowledge and demand for retrofitting, limited access to funding (including low-cost loans), lack of skills and local supply chain, and a lack of financial incentives and business models to make investment in retrofit stack up for homeowners, public and private landlords. This is in part due to the amount it costs to retrofit a property and the time it takes to recover that investment through reduced energy costs . Domestic energy (along with transport) is traditionally one of the two highest emitted sectors</p>
Challenges	Significantly challenges			

2. Emissions Inventory

Emissions Inventory Methodology

(2.1) Does your jurisdiction have a community-wide emissions inventory to report?

Yes

(2.1a) Provide information on and an attachment (in spreadsheet format)/ direct link to your main community-wide GHG emissions inventory.

Response

Main community-wide emissions inventory: attachment (spreadsheet) and/or URL link (with unrestricted access)^

Sunderland Scatter Inventory 2019
 SCATTER_sunderland_CDP-report-inventory_2019.xlsx

Status of main community-wide inventory attachment and/or direct link (selection mandatory)

The emissions inventory has been attached

Year covered by main inventory^

2019

Boundary of main inventory relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Population in year covered by main inventory^

276014

Primary protocol/framework used to compile main inventory (selection mandatory)

Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC)

Tool used to compile main inventory

SCATTER

Gases included in main inventory^

CO2
 CH4
 N2O

Primary source of emission factors

IPCC Fourth Assessment Report (2007)

Has the main inventory been audited/verified?

No, not audited/verified

Overall level of data quality

Activity data - Medium data quality
 Emissions factors - High data quality

Have any of the calculation methodologies and/or boundary used for this inventory changed when compared to the previously reported inventory?

No changes to the methodology and/or boundary used when compared to the previously reported inventory

Additional/historical inventories: attachment (spreadsheet) and/or URL link (with unrestricted access)

Sunderland's SCATTER inventories for 2018 and 2017 have been attached as well as the 2005 - 2021 LA emission figures published annually by DESNZ.
 2005 - 2021 DESNZ LA Emissions.xlsx
 2005 - 2021 DESNZ LA Emissions.xlsx
 SunderlandScatterInventory2018.xlsx
 SCATTER 2017 Emissions Inventory.xlsx

Further documentation and comments

SCATTER is based on the Accounting and Reporting Standard developed by the Greenhouse Gas Protocol for Community-Scale Greenhouse Gas Emissions Inventories.

Some parts of our inventory are not estimated by SCATTER. SCATTER is continually working to improve the accuracy and functionality of the tool.

SCATTER data is verified by SCATTER only, we will consider having our city data externally verified in the future, to increase our confidence in the data.

Please note the population figure for 2019 is a mid-year estimate for that year from DESNZ and varies from the figures provided through the 2021 Census for question 0.1. Sunderland, like many other authorities relied on SCATTER for annual CDP submissions although, unfortunately, SCATTER has now come to the end of its funding. Sunderland are reporting their 2019 SCATTER inventory for the 2023 submission and are awaiting government guidance ahead of the submission for 2024.

Emissions Inventory Data

(2.1c) Provide a breakdown of your community-wide emissions in the format of the Common Reporting Framework.

	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Stationary energy > Residential buildings^	311879.11	Please select	96328.7	Please select	56103.61	Please select	
Stationary energy > Commercial buildings & facilities^	38274.02	Please select	83913.5	Please select	17699.94	Please select	
Stationary energy > Institutional buildings & facilities^	31392.08	Please select	18219.86	Please select	6843.27	Please select	

	Direct emissions (metric tonnes CO2e)^A	If you have no direct emissions to report, please select a notation key to explain why^A	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^A	If you have no indirect emissions to report, please select a notation key to explain why^A	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^A
Stationary energy > Industrial buildings & facilities^A	112163.09	Please select	102222.1	Please select	35814.26	Please select	
Stationary energy > Agriculture^A	874.7	Please select	0.17	Please select	208.21	Please select	
Stationary energy > Fugitive emissions^A	39382.18	Please select	0	NO	0	NE	All estimated fugitive emissions are direct. Scope 3 fugitive emissions are beyond the scope of the current analysis.
Total Stationary Energy	533965.18	Please select	300684.33	Please select	116669.28	Please select	
Transportation > On-road^A	356368.25	Please select	0	IE	9742.83	Please select	Electricity consumption from on-road transport included in Stationary Energy figures
Transportation > Rail^A	565.16	Please select	0	IE	134.51	Please select	Electricity consumption from rail transport included in Stationary Energy figures
Transportation > Waterborne navigation^A	4083	Please select	0	IE	0	IE	All UK waterborne transport assumed to be diesel.
Transportation > Aviation^A	0	NO	0	IE	153928.4	Please select	Electricity consumption from aviation not possible to separate from stationary energy data.
Transportation > Off-road^A	3557.62	Please select	0	IE	0	NE	Electricity consumption from off-road transport included in Stationary Energy figures
Total Transport	364574.04	Please select	0	IE	163805.71	Please select	
Waste > Solid waste disposal^A	4221.73	Please select	0	IE	0	IE	Scope 2 / 3 waste covered under stationary Energy.
Waste > Biological treatment^A	0	NO	0	IE	0	IE	Scope 2 / 3 waste covered under stationary Energy.
Waste > Incineration and open burning^A	1925	NO	0	IE	0	IE	Scope 2 / 3 waste covered under stationary Energy.
Waste > Wastewater^A	5059.84	Please select	0	IE	0	IE	Scope 2 / 3 waste covered under stationary Energy.
Total Waste	11206.57	Please select	0	NE	0	IE	Scope 2 / 3 waste covered under stationary Energy.
IPPU > Industrial process	99433.37	Please select	0	IE	0	NE	Beyond the scope of the current analysis; we plan to include in future.
IPPU > Product use	0	NE	0	IE	0	NE	Beyond the scope of the current analysis; we plan to include in future.
Total IPPU	99433.37	Please select	0	IE	0	NE	Beyond the scope of the current analysis; we plan to include in future.
AFOLU > Livestock	1110.19	Please select	0	NO	0	NE	Beyond the scope of the current analysis; we plan to include in future.
AFOLU > Land use	-8693.99	Please select	0	NO	0	NE	Beyond the scope of the current analysis; we plan to include in future.
AFOLU > Other AFOLU	0	NE	0	NO	0	NE	Beyond the scope of the current analysis; we plan to include in future.
Total AFOLU	-7583.81	Please select	0	NO	0	NE	Beyond the scope of the current analysis; we plan to include in future.
Generation of grid-supplied energy > Electricity-only generation^A	0	NO	0	NE	0	NO	
Generation of grid-supplied energy > CHP generation^A	0	NO	0	NE	0	NO	
Generation of grid-supplied energy > Heat/cold generation^A	0	NO	0	NE	0	NO	

	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Generation of grid-supplied energy > Local renewable generation	1.47	Please select	0	NO	0	NO	We have not extracted electricity-specific emissions from factors used for renewable electricity. All emissions are included in Scope 1.
Total generation of grid-supplied energy	1.47	Please select	0	NE	0	NE	
Total Emissions (excluding generation of grid-supplied energy)	1001596.82	Please select	300684.33	Please select	280479.99	Please select	

Consumption-Based Emissions Inventory

(2.2) Does your jurisdiction have a consumption-based emissions inventory to measure emissions from consumption of goods and services? The consumption-based approach captures direct and lifecycle GHG emissions of goods and services and allocates GHG emissions to the final consumers, rather than to the producers.

	Consumption-based emissions inventory	Provide an overview and attach your consumption-based inventory, along with any supporting methods/calculations
Response	Other, please specify (Sunderland currently does not have a citywide consumption-based emissions inventory, although this is something which may be considered in the future)	Sunderland currently does not have a citywide consumption-based emissions inventory, although this is something which may be considered in the future.

3. Sector Assessment Data

Energy Data

(3.1) Report the following information regarding your jurisdiction-wide energy consumption.

Response

Total energy consumption (MWh)^

3467165

Total energy consumption from renewable energy sources (MWh)^

49889

Indicate the energy data for which you can report a fuel/technology mix^

Electricity consumption mix data
Thermal (heating and cooling) consumption mix data
Energy generation mix data
Sector energy consumption breakdown data

Indicate the energy-related assessments that have been undertaken for your jurisdiction^

Assessment that considers sustainable energy
Assessment that considers energy security
Assessment that considers affordable energy

Please explain^

The total energy consumption figure is derived from data provided by DESNZ, who publish annual electricity and gas consumption statistics by local authority on an annual basis. The total electricity consumption in 2021 was 1,060,865MWh and the total gas consumption in 2021 was 2,406,300MWh. The total energy generation from renewable sources is from 49,889MWh.

The City Council has appointed Jacobs as Strategic Energy Advisor over a 6 month period commissioning them to undertake a review and make recommendations in four key areas:

- WP1 Overall Land Supply – Energy Action Plan; identify opportunities and constraints within Sunderland, evaluating land availability, determining viable energy solutions, before workshopping and ranking outcomes to create a hierarchy of strategic energy sites and projects.
- WP2 Council Property – Building Action Plan; identify opportunities and constraints within Sunderland City Council’s major operational properties, evaluating fabric improvements, HVAC improvements, as well as generation and storage opportunities shortlisting viable solutions before workshopping to create a hierarchy of decarbonisation opportunities.
- WP3 Port of Sunderland – Energy Hub; examining larger scale opportunities in wind offshore and onshore, PV, battery storage, Green Hydrogen over the short, medium, and long term and identifying any constraints. ‘Think Piece’ on the Port as a developing Energy Hub for the city within its real estate is needed to test the land assets necessary as part of a future masterplan.
- WP4 Development Standards; conduct a review of the current range of buildings and designs /targets for each sector/type of construction, bring compare the benchmark of Sunderland’s approach including what impact this might have on cost /viability for the City’s geographic area and market. Test compliance of the benchmarks chosen for the existing programme with new and emerging building standards in each sector and to suggest any improvement areas set against the city carbon targets. Assess whether there can be a standardised approach to both private development /developers and public build programmes in terms of standards on fabric /build/energy and decarbonisation technologies in terms of embodied carbon/ carbon in operation and overall energy efficiency. Test “future proofing” fabric/ technology flexibility /standards and targets set with those achieved elsewhere with emerging standards with relevant examples and case studies.

(3.1a) Report the total electricity consumption in MWh and the energy mix used for electricity consumption in your jurisdiction.

Electricity consumption

Total annual jurisdiction-wide electricity consumption in MWh

1060865

Data source used to provide percentage breakdown of consumption by energy type

National-level data

Percentage of total consumption from coal (%)

2

Percentage of total consumption from gas (%)

40

Percentage of total consumption from oil (%)

1

Percentage of total consumption from nuclear (%)

15

Percentage of total consumption from hydropower (%)

3

Percentage of total consumption from bioenergy (biomass and biofuels) (%)

13

Percentage of total consumption from wind (%)

21

Percentage of total consumption from geothermal (%)

0

Percentage of total consumption from solar (%)

4

Percentage of total consumption from waste to energy (excluding biomass component) (%)

0

Percentage of total consumption from wave (%)

0

Percentage of total consumption from tidal (%)

0

Percentage of total consumption from other renewable sources (%)

1

Percentage of total consumption from other non-renewable sources (%)

0

Year data applies to

2021

Comment

Total electricity consumption is the Sunderland citywide figure derived from the Regional and local authority electricity consumptions statistics, published annually by the Department for Energy Security and Net Zero (DESNZ). The source mix is based on national data based on the most recent Digest of UK Energy Statistics (DUKES).

Further information can be found at <https://www.gov.uk/government/statistics/digest-of-uk-energy-statistics-dukes-2022> and <https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics>

(3.1b) Report the total thermal (heating/cooling) energy consumption in MWh and the energy mix used for thermal (heating/cooling) source mix breakdown for energy consumption in your jurisdiction.

Thermal (heating/cooling) consumption

Total annual jurisdiction-wide thermal consumption in MWh[^]

2191114

Data source used to provide percentage breakdown of consumption by energy type

National-level data

Percentage of total consumption from coal (%)[^]

0.4

Percentage of total consumption from gas (%)[^]

89

Percentage of total consumption from oil (%)[^]

0.4

Percentage of total consumption from nuclear (%)[^]

0

Percentage of total consumption from non-renewable electricity (%)[^]

0

Percentage of total consumption from renewable electricity (%)[^]

0

Percentage of total consumption from bioenergy (inc. biomass and biofuels) (%)[^]

1.9

Percentage of total consumption from solar thermal (%)[^]

0

Percentage of total consumption from geothermal (%)[^]

0

Percentage of total consumption from waste to energy (solid waste excluding biomass) (%)[^]

0

Percentage of total consumption from waste water heat recovery (WWHR) (%)[^]

0

Percentage of total consumption from other renewable sources (%)[^]

4.9

Percentage of total consumption from other non-renewable sources (%)[^]

3.4

Year data applies to

2021

Comment

Total heating and cooling consumption is taken from Sunderland's Scatter inventory, which accounts for domestic, industrial and commercial heating and cooling consumption within the city boundary. The source mix is based on the Scatter data and the ESO data portal. Further information can be found at <https://data.nationalgrideso.com/carbon-intensity1/historic-generation-mix>.

(3.1c) For each type of renewable energy within the jurisdiction boundary, report the installed capacity (MW) and annual generation (MWh).

Solar PV

Installed capacity (MW)[^]

30.6

If you have no installed capacity data to report, please select a notation key to explain why[^]

Annual generation (MWh)[^]

24544

If you have no generation data to report, please select a notation key to explain why[^]

Year data applies to

2021

Comment

Data provided by the Department for Energy Security and Net Zero.

Solar thermal

Installed capacity (MW)^

0

If you have no installed capacity data to report, please select a notation key to explain why^

Not Occurring (NO)

Annual generation (MWh)^

0

If you have no generation data to report, please select a notation key to explain why^

Not Occurring (NO)

Year data applies to

2021

Comment

Hydropower

Installed capacity (MW)^

0

If you have no installed capacity data to report, please select a notation key to explain why^

Not Occurring (NO)

Annual generation (MWh)^

0

If you have no generation data to report, please select a notation key to explain why^

Not Occurring (NO)

Year data applies to

2021

Comment

Wind

Installed capacity (MW)^

14.7

If you have no installed capacity data to report, please select a notation key to explain why^

Annual generation (MWh)^

25345

If you have no generation data to report, please select a notation key to explain why^

Year data applies to

2021

Comment

Data provided by the Department for Energy Security and Net Zero.

Bioenergy (Biomass and Biofuels)

Installed capacity (MW)^

0

If you have no installed capacity data to report, please select a notation key to explain why^

Not Occurring (NO)

Annual generation (MWh)^

0

If you have no generation data to report, please select a notation key to explain why^

Not Occurring (NO)

Year data applies to

2021

Comment

Geothermal

Installed capacity (MW)^

0

If you have no installed capacity data to report, please select a notation key to explain why^

Not Occurring (NO)

Annual generation (MWh)^

0

If you have no generation data to report, please select a notation key to explain why^

Not Occurring (NO)

Year data applies to

2021

Comment

Other

Installed capacity (MW)^

2

If you have no installed capacity data to report, please select a notation key to explain why^

Annual generation (MWh)^

7235

If you have no generation data to report, please select a notation key to explain why^

Year data applies to

2021

Comment

Data provided by the Department for Energy Security and Net Zero. This data is for landfill gas.

(3.1d) Report the total jurisdiction-wide annual electricity and heating and cooling consumption for each sector listed and for your government operations.

	Electricity consumption (MWh)	Heating and cooling consumption (MWh)	Year data applies to	Comment
Household/residential sector (Buildings)	376872.83	1727346.49	2019	Data taken from Sunderland's most recent Scatter inventory.
Commercial sector	328300.07	207979.05	2019	Data taken from Sunderland's most recent Scatter inventory.
Industrial sector	399930.03	562427.16	2019	Data taken from Sunderland's most recent Scatter inventory.
Agricultural sector	0.65	2.05	2019	Data taken from Sunderland's most recent Scatter inventory.
Transport sector	0	0	2019	Integrated elsewhere.
Government operations	18152.59	9048.85	2022	Data taken from Sunderland's energy management software – including energy consumption for operations (leading to scope 1 and 2 emissions) only.
Other	71282.7	170719.7	2019	Institutional buildings and facilities. Data taken from Sunderland's most recent Scatter inventory.

(3.2) Report the percentage of households within the jurisdiction with access to clean cooking fuels and technologies.

	Percentage of households within the jurisdiction with access to clean cooking fuels and technologies^	Data source	Year data applies to	Comment
Response	>75%	Jurisdiction-level data	2023	<p>Sunderland City Council follows WHO guidelines to determine how many homes have access to clean cooking fuels and technologies, working on the basis that the main fuel in the property is used for cooking. The Council uses the Parity housing software to determine how many homes have access to clean fuels and technology.</p> <p>It is estimated that 130,219 (99.8%) of Sunderland's 130,447 have access to clean cooking fuels and technologies.</p> <p>In-line with WHO guidelines the Council has assumed that dual fuel, electricity (both community and non-community), LPG, natural gas (both community and non-community) are clean fuels for this calculation. The Council has assumed that oil, smokeless coal, wood logs and house coal are unclean cooking fuels.</p>

(3.3) How many households within the jurisdiction boundary face energy poverty? Select the threshold used for energy poverty in your jurisdiction.

	Indicator used to estimate energy poverty^	Percentage of households or total population within the jurisdiction boundary that face energy poverty^	Threshold used for energy poverty^	Comment
Response	Percentage of households within the jurisdiction boundary that face energy poverty	14.6	Other, please specify (See comments section)	<p>Fuel poverty in England is now measured using the Low-Income Low-Energy Efficiency (LILEE) indicator rather than the old Low-Income High-Costs (LIHC) indicator.</p> <p>Under the LILEE indicator, a household is considered fuel poor if:</p> <ul style="list-style-type: none"> - They are living in a property with a fuel poverty energy efficiency rating of band D or below; and - When they spend the required amount to heat their home, they are left with a residual income below the official poverty line. <p>Fuel poverty is a significant issue in Sunderland. According to the UK Government, 13,756 children in Sunderland live in low-income families as of 2021 (30.8%) and 18,513 households in Sunderland are in fuel poverty as of 2020.</p>

(3.4) Report the following information on access to secure energy for your jurisdiction.

Percentage of population or households with access to electricity

Data availability

Data available to report

Indicator[^]

Percentage of jurisdiction population with access to electricity (%)

Response value[^]

100

Year data applies to

2023

Comment

Data is taken from the World Bank (<https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=GB>). 100% of the UK population have had access to electricity since 1990. It is likely that a very small number of households may not have access to electricity in some places.

Average duration of available electricity

Data availability

Data available to report

Indicator[^]

Number of days electricity is available per year (days/year)

Response value[^]

365

Year data applies to

2023

Comment

The UK has high levels of electricity access.

Average yearly final energy consumption per capita

Data availability

Data available to report

Indicator[^]

kWh/year/person

Response value[^]

12644.66

Year data applies to

2021

Comment

Result calculated using subnational electricity / gas consumption statistics (DESNZ) and the population figure provided earlier in this report.

Transport Data

(3.5) Report your jurisdiction's passenger and/or freight mode share data.

Mode share data

Passenger mode share data to report

Passenger mode share as share of trips

Passenger mode share: Walking

31.4

Passenger mode share: Cycling

0.6

Passenger mode share: Micromobility (including e-scooters)

0

Passenger mode share: Buses (including Bus Rapid Transit)

5.3

Passenger mode share: Rail/Metro/Tram

1

Passenger mode share: Ferries/ River boats

0

Passenger mode share: Taxis or shared vehicles (e.g. hire vehicles)

1.5

Passenger mode share: Private motorized transport

60.2

Passenger mode share: Other

0

Year passenger mode share data applies to

2021

Total passenger mode share reported

100

Freight mode share data to report

Freight mode share as share of vehicle distance travelled

Freight mode share: Motorcycle / Two wheeler

0

Freight mode share: Light Goods Vehicles (LGV)

0

Freight mode share: Medium Goods vehicles (MGV)

0

Freight mode share: Heavy Goods vehicles (HGV)

77

Freight mode share: Rail

9

Freight mode share: Inland water transport

14

Freight mode share: Other

0

Year freight mode share data applies to

2021

Total freight mode share reported

100

Comment

Passenger modal share data is taken from mode of travel data published by the Department for Transport. This data is national level data, as data is not yet available at a local authority level. Unfortunately, the dataset does not account for micro mobility or ferries / river boats. This dataset, along with other data, can be found at <https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons#mode-by-age-and-gender>.

Freight modal share data is also taken from the Department for transport. Road freight accounted for 77% of all freight transport in 2021, although for the purpose of this question has been reported as the 'HGV' category. Unfortunately, the dataset does not account for the modes which have been entered as '0%'. This dataset, along with other data, can be found at <https://www.gov.uk/government/statistics/transport-statistics-great-britain-2021/transport-statistics-great-britain-2021#freight-transport>.

Waste Data

(3.7) Report the following waste-related data for your jurisdiction.

	Data availability	Response (in unit specified)	Year data applies to	Comment
Total amount of solid waste generated (tonnes/year)	Reporting jurisdiction-level data	129589	2021	This figure of 129,589 represents all local authority collected waste for the 2021/22 financial year (April – March). Of these 129,589, 91% is domestic, and 9% non-domestic. These figures are taken from a national DESNZ dataset for Local Authority Collected and Household Waste. The dataset is derived from WasteDataFlow, a web-based system for quarterly reporting on Local Authority collected waste data by local authorities to central Government.
Percentage of the total solid waste generated that is utilized for waste to energy (%)	Reporting jurisdiction-level data	34	2021	Of the 129,589 tonnes of solid waste managed within the city, 43,551 tonnes were diverted from landfill and incineration. This included recycling, composting, reuse, other and input to intermediate plants. This equates to 34%. For this calculation – waste that is not diverted included the 'incineration with energy from waste' category as well as the 'landfill' and 'incineration without energy from waste' categories.
Percentage of the total solid waste generated that is diverted away from landfill and incineration (%)	Reporting jurisdiction-level data	27		Of the 132,286 tonnes of solid waste managed within the city, 35,333 were either recycled, composted, reused, equating to 27%.
Percentage of the diverted solid waste generated that is recycled (%)	Reporting jurisdiction-level data			Of the 129,587 tonnes of solid waste managed within the city, 37,708 were either recycled or composted equating to 29%. These figures are taken from a national DESNZ dataset for Local Authority Collected and Household Waste. The dataset is derived from WasteDataFlow, a web-based system for quarterly reporting on Local Authority collected waste data by local authorities to central Government.
Percentage of the diverted solid waste generated that is reused (%)	This data is not available to report	<Not Applicable>	<Not Applicable>	
Percentage of waste collected where separation at source is taking place (%)	This data is not available to report	<Not Applicable>	<Not Applicable>	
Total annual amount of food waste produced in the jurisdiction (tonnes/year)	This data is not available to report	<Not Applicable>	<Not Applicable>	
Volume of wastewater produced within the jurisdiction boundary (megalitres/year)	This data is not available to report	<Not Applicable>	<Not Applicable>	
Percentage of wastewater safely treated to at least secondary level (%)	This data is not available to report	<Not Applicable>	<Not Applicable>	

Public Health Data

(3.8) Report on how climate change impacts health outcomes and health services in your jurisdiction.

Health area affected by climate change

Health outcomes

Identify the climate hazard(s) that most significantly impact the selected health area

- Extreme heat
- Extreme cold
- Snow and ice
- Urban flooding
- River flooding
- Coastal flooding (incl. sea level rise)
- Other coastal events
- Extreme wind
- Storm
- Heavy precipitation
- Other, please specify (air pollution; surface water flooding)

Identify the health issues driven by the selected climate hazard(s)

- Heat-related illnesses
- Cold-related illnesses
- Exacerbation of non-communicable disease symptoms - respiratory disease
- Exacerbation of non-communicable disease symptoms - cardiovascular disease
- Mental health impacts
- Direct physical injuries and deaths due to extreme weather events
- Disruption to water, sanitation and wastewater services
- Disruption to health service provision
- Overwhelming of health service provision due to increased demand
- Damage/destruction to health infrastructure and technology
- Disruption of health-related services

Timeframe of impact

Medium-term (2026-2050)

Identify which vulnerable populations are affected by the selected health issue(s)

- Children and youth
- Elderly
- Vulnerable health groups
- Low-income households
- Outdoor workers
- Frontline workers

What factors affect your jurisdiction's ability to address the selected health issues

Lack of financial capacity

Comment

The climate hazards and main health issues stated here are already being witnessed to some extent, however this will be increased in both frequency and intensity in decades to come.

Health area affected by climate change

Health systems

Identify the climate hazard(s) that most significantly impact the selected health area

- Extreme heat
- Extreme cold
- Snow and ice
- Urban flooding
- River flooding
- Coastal flooding (incl. sea level rise)
- Other coastal events
- Extreme wind
- Storm
- Heavy precipitation
- Other, please specify (air pollution; surface water flooding)

Identify the health issues driven by the selected climate hazard(s)

- Heat-related illnesses
- Cold-related illnesses
- Exacerbation of non-communicable disease symptoms - respiratory disease
- Exacerbation of non-communicable disease symptoms - cardiovascular disease
- Mental health impacts
- Direct physical injuries and deaths due to extreme weather events
- Disruption to water, sanitation and wastewater services
- Disruption to health service provision
- Overwhelming of health service provision due to increased demand
- Damage/destruction to health infrastructure and technology
- Disruption of health-related services

Timeframe of impact

Medium-term (2026-2050)

Identify which vulnerable populations are affected by the selected health issue(s)

- Children and youth
- Elderly
- Vulnerable health groups
- Low-income households
- Outdoor workers
- Frontline workers

What factors affect your jurisdiction's ability to address the selected health issues

Lack of financial capacity

Comment

The climate hazards and main health issues stated here are already being witnessed to some extent, however this will be increased in both frequency and intensity in decades to come.

Health area affected by climate change

Areas outside the health sector

Identify the climate hazard(s) that most significantly impact the selected health area

- Extreme heat
- Extreme cold
- Snow and ice
- Urban flooding
- River flooding
- Coastal flooding (incl. sea level rise)
- Other coastal events
- Extreme wind
- Storm
- Heavy precipitation
- Other, please specify (air pollution; surface water flooding)

Identify the health issues driven by the selected climate hazard(s)

- Heat-related illnesses
- Cold-related illnesses
- Exacerbation of non-communicable disease symptoms - respiratory disease
- Exacerbation of non-communicable disease symptoms - cardiovascular disease
- Mental health impacts
- Direct physical injuries and deaths due to extreme weather events
- Disruption to water, sanitation and wastewater services
- Disruption to health service provision
- Overwhelming of health service provision due to increased demand
- Damage/destruction to health infrastructure and technology
- Disruption of health-related services

Timeframe of impact

Medium-term (2026-2050)

Identify which vulnerable populations are affected by the selected health issue(s)

Children and youth
Elderly
Vulnerable health groups
Low-income households
Outdoor workers
Frontline workers

What factors affect your jurisdiction's ability to address the selected health issues

Lack of financial capacity

Comment

The climate hazards and main health issues stated here are already being witnessed to some extent, however this will be increased in both frequency and intensity in decades to come.

(3.9) Report the following air pollution data for the jurisdiction.

Air pollution metric

Particulate Matter PM2.5 concentration (annual average) level (ug/m3)

Value

8

Number of air quality monitoring stations measuring this pollutant in your jurisdiction

1

Year data was collected

2022

Weblink to air pollution data from monitoring site(s)

<https://uk-air.defra.gov.uk/data/exceedance> - UK Defra Annual and Exceedance Statistics <https://www.wecare4air.co.uk/air-quality-data/sunderland-trimdon-street/> - Sunderland Trimdon Street

Comment

Data comes from the UK Defra Annual and Exceedance statistics measured at Sunderland Silksworth Site.

Air pollution metric

NO2 concentration (annual average) level (ug/m3)

Value

15

Number of air quality monitoring stations measuring this pollutant in your jurisdiction

3

Year data was collected

2022

Weblink to air pollution data from monitoring site(s)

<https://uk-air.defra.gov.uk/data/exceedance> - UK Defra Annual and Exceedance Statistics <https://www.wecare4air.co.uk/air-quality-data/sunderland-trimdon-street/> - Sunderland Trimdon Street

Comment

Data comes from the UK Defra Annual and Exceedance statistics measured at Wessington Way, Silksworth and Trimdon Street AQ Sites.

Air pollution metric

Number of days exceeding air quality guidelines/standards (times/year)

Value

0

Number of air quality monitoring stations measuring this pollutant in your jurisdiction

<Not Applicable>

Year data was collected

2022

Weblink to air pollution data from monitoring site(s)

<https://uk-air.defra.gov.uk/data/exceedance> - UK Defra Annual and Exceedance Statistics <https://www.wecare4air.co.uk/air-quality-data/sunderland-trimdon-street/> - Sunderland Trimdon Street

Comment

Data comes from the UK Defra Annual and Exceedance statistics measured at Wessington Way, Silksworth and Trimdon Street AQ Sites.

(3.10) Provide details of the household access to water, sanitation services and water consumption in your jurisdiction.

Response

Data availability

Data is available for the percentage of households with access to safely managed drinking water services
 Data is available for the percentage of households with access to safely managed sanitation services
 Data is available for the average household water consumption in litres per capita per day

Percentage of households with access to safely managed drinking water services

100

Percentage of households with access to safely managed sanitation services

100

Household water consumption (litres/capita/day)

140

Comment

Northumbrian Water (NW) is responsible for supplying Sunderland with water. Sunderland is covered in its entirety by the Kielder Resource Zone (WRZ). Water supply in North East England is particularly resilient to future climate change, due to the Kielder Reservoir, and it is expected that the WRZ will be in a supply surplus up to the end of the current Northumbrian Water Resources Management Plan (WRMP) period. This means that there is widespread citywide access to safely managed drinking water and sanitation services.

Within the Kielder WRZ, average per capita consumption is currently 140l/person/day. Northumbrian Water aims to achieve a household consumption of 110l/household/day by 2050.

The Northumbrian Water Resources Management Plan 2021-2025 aims to reduce leakage by 15% between 2020 and 2025, and a further 10% over each subsequent 5-year periods through to 2045. In addition, the WRMP aims to annually reduce per capita water consumption by 0.12l/head/day (0.33 MI/day) by delivering water efficiency activities. This will not only improve water resource efficiency and security but will also save both the company and residents money.

Northumbrian Water recently received a four-star rating (highest possible) on an Environmental Performance Assessment for 2020 by the Environment Agency. Building on this, Northumbrian Water aim to build on this achievement and have more than £700 million of investment planned in their current Business Plan period 2020-2025. Northumbrian Water launched their 'Improving the Water Environment' scheme, where Northumbrian Water will help to deliver improvements to water quality among other areas.

These targets include but are not specific to Sunderland; they relate to the wider region aligned to the geographic remit of Northumbrian Water.

Food Data

(3.11) What percentage of your population is food insecure and/or lives in a food desert?

	Data availability	Percentage of population that is food insecure	Percentage of population that lives in a food desert	Comment
Response	Data available for the percentage of population that is food insecure Data available for the percentage of population that lives in a food desert	9.8	12.4	<p>The percentage of the population that is food insecure was assessed using a national study from the University of Sheffield in 2021. The study calculates the percentage of people who are 'hungry', 'struggling' and 'worried about' access to food in local authorities.</p> <p>'Hungry' people could not afford to access food in the previous month. 'Struggling' people sought help to access food in the last month, have cut back on meals and healthy foods, or struggled to access food. 'Worried about' includes people who could supply adequate food but may be just managing and could slip into food insecurity in an unexpected crisis.</p> <p>In January 2021, 3.23% of people were hungry, 9.83% of people were struggling and 13.60% of people were 'worried'. Sunderland class people who are hungry or struggling as currently being in food insecurity and people who are worried as being at significant risk of slipping into food insecurity. The analysis can be found at https://www.sheffield.ac.uk/news/new-map-shows-where-millions-uk-residents-struggle-access-food.</p> <p>Food desert figures were calculated by using UPRN data to work out how many homes more than 1-mile radius from a supermarket. The number of people per household was calculated by dividing the total population (277,846) by the number of dwellings (132,919) in the city, leaving a ratio of 2.1 people per household. The 2.1 ratio was then used to work out the population within a food desert.</p> <p>The cost-of-living crisis is increasing food insecurity, shown by the number of young people who qualify for free school meals. The number of children eligible for free school meals increased by 10% between 2015/16 – 2021/22, from 19.4% to 29.4%. It is likely that Sunderland's position has worsened since 2021 due to the cost-of-living crisis.</p> <p>Sunderland Foodbank (SFB) has 8 sites across the city and there are roughly 50 independent food banks and crisis food providers. The Trussell Trust has identified drivers of food insecurity and food bank use, including low incomes, high housing costs and changes to the welfare benefit system. People in debt are more at risk, as are those in low-paid, insecure work, and those with long-term health problems.</p> <p>According to SFB and several other independent food banks, the number of people seeking support from food banks increased by 82% between 2019-20 and 2020-21 (from 10,809 to 19,674).</p>

(3.12) Report the total quantity of food that is procured (in tonnes) for government-owned and/or operated facilities (including municipal facilities, schools, hospitals, youth centers, shelters, public canteens, prisons etc.). If available, please provide a breakdown per food group.

	Total quantity of food procured (tonnes)	Breakdown of procured food by food group	Year data applies to	Comment
Response	1486.7	<p>The following breakdown for schools, public canteens and shelters is currently available, and is based on spend:</p> <ul style="list-style-type: none"> • Frozen food = 45% • Fruit and veg = 17% • Groceries = 25% • Meat = 13% <p>A breakdown for hospitals is currently unavailable.</p>	2021	<p>It is predicted that Sunderland schools serve 1,500,000 meals per year, equating to 509 tonnes. This is based on 7,900 meals being served daily equating to circa 1,500,000 meals per annum.</p> <p>It is predicted that Sunderland's City Hall cafe, the Brew and Bake, serves 37,500 meals per year, equating to 12.7 tonnes. This figure is an estimate on the basis that there will be 300 customers per day for 255 trading days each year, equating to 75,000 customers per annum. It is assumed that 50% of customers are buying food, equating to 37,500 meals and 12.7 tonnes per annum.</p> <p>It is predicted that shelters serve 2,190,000 meals per year, equating to 482.5 tonnes per year. This is based on roughly 2,000 people in residential care and nursing homes and is the same figure used as last year.</p> <p>Based on the most recent data available, it is predicted that hospitals in Sunderland serve 919,029 meals per year, equating to 482.5 tonnes. For the period 01.04.2020 – 31.03.2021 (the most recent data available) there were 750,593 patient meals and 168,436 staff / visitor meals. These numbers are reduced due to COVID-19 with reduced hospital admissions due to the pausing of elective services for a period of time. The number of patient meals in 2019/20 were 1,043,196.</p> <p>There are no prisons in Sunderland.</p>

Water Data

(3.13) Report the sources of your jurisdiction's water supply, volumes withdrawn per source, and the projected change.

Source of jurisdiction's water supply	Are you able to report volumetric data for this source?	Annual volume of water withdrawn per source (in megalitres)	Projected level of change over next 5-10 years	Comment
Fresh surface water, including rainwater, water from wetlands, rivers and lakes	Yes	14197.93	Higher volume projected to be withdrawn	<p>Figures are calculated by multiplying the current water consumption per capita (140l/person/day) by 365 to find the annual consumption per capita (51,100l/person/annum) and multiplying by the current population (277,846).</p> <p>If growth in Sunderland occurred according to the development strategy of 14,751 dwellings from 2015-2033, it would result in an increase in the number of households of approximately 12.1%. Growth in Northumbrian Water's plans are aligned with this expected growth, however the most recent figures show a slight decline in population.</p> <p>Note this figure is in relation to domestic water use only. It is hoped a more holistic figure can be provided in future.</p>

Targets

4. Adaptation Goals

(4.1) Does your jurisdiction have an adaptation goal(s) in place? If no adaptation goal is in place, please indicate the primary reason why.

Yes, our jurisdiction has an adaptation goal(s)

(4.1a) Report your jurisdiction's main adaptation goals.

Select a reference ID for the goal

Adaptation goal 1

Adaptation goal^

Reduce citywide flood risk

Climate hazards that goal addresses^

Urban flooding

River flooding

Coastal flooding (incl. sea level rise)

Other coastal events

Storm

Heavy precipitation

Other, please specify (Surface water flooding)

Base year of goal (or year goal was established if no base year)^

2023

Target year of goal^

2023

Description of metric / indicator used to track goal^

Citywide flood risk - number of properties.

Comment

Sunderland City Council aims to reduce citywide flood risk annually and in the long term. The magnitude of each annual goal is typically set in relation to the possible scheme funding available and the magnitude of flood risk reduction achievable.

For the 2023/24 financial year, Sunderland City Council aims to increase the flood resilience of 300 properties (roughly 600 people). Achieving this target is heavily influenced by funding availability from the Environment Agency.

Select a reference ID for the goal

Adaptation goal 2

Adaptation goal[^]

Reduce vulnerability to air pollution

Climate hazards that goal addresses[^]

Other, please specify (Air pollution)

Base year of goal (or year goal was established if no base year)[^]

2023

Target year of goal[^]

2023

Description of metric / indicator used to track goal[^]

Annual mortality attributable to air pollution / number of days where air pollution is recorded as 'low' within the city.

Comment

Sunderland City Council aims to reduce mortality due to air pollution each year. This is a common national goal through Public Health England. More information can be found at <https://fingertips.phe.org.uk/profile/health-protection/data#page/0/gid/1000002/pat/6/ati/102/are/E08000024/iid/93463/age/288/sex/4/cid/4/tbm/1>.

Select a reference ID for the goal

Adaptation goal 3

Adaptation goal[^]

Reduce fuel poverty including due to climate change

Climate hazards that goal addresses[^]

Extreme cold

Snow and ice

Base year of goal (or year goal was established if no base year)[^]

2023

Target year of goal[^]

2023

Description of metric / indicator used to track goal[^]

Annual number of residents who are fuel poor.

Comment

Sunderland City Council aims to reduce mortality due to fuel poverty each year and in the long term. This is a common national goal through Public Health England. More information can be found at <https://fingertips.phe.org.uk/profile/health-protection/data#page/0/gid/1000002/pat/6/ati/102/are/E08000024/iid/93463/age/288/sex/4/cid/4/tbm/1>.

Select a reference ID for the goal

Adaptation goal 4

Adaptation goal[^]

Protection of greenspace

Climate hazards that goal addresses[^]

Heat stress

Extreme heat

Extreme cold

Snow and ice

Urban flooding

River flooding

Coastal flooding (incl. sea level rise)

Extreme wind

Storm

Heavy precipitation

Biodiversity loss

Loss of green space/green cover

Soil degradation/erosion

Other, please specify (Air pollution; Surface water flooding)

Base year of goal (or year goal was established if no base year)[^]

2015

Target year of goal[^]

2033

Description of metric / indicator used to track goal[^]

The main metric is city land area % that is greenspace.

Council Policy NE4 (Greenspace) aims to protect, conserve and enhance green infrastructure by:

1. designating greenspaces in the Allocations & Designations (A&D) Plan;
2. requiring development to contribute to greenspace where there is an evidenced requirement;
3. requiring all major residential development to provide:
i) ≥ 0.9 ha per 1,000 bedspaces of useable greenspace on site; or

- ii) a financial contribution for the maintenance/upgrading to neighbouring existing greenspace
- 4. refusing development which would negatively effect greenspace value unless it can be demonstrated that:
 - i) the proposal is accompanied by an assessment that clearly demonstrates that the provision is surplus to requirements; or
 - ii) a replacement facility which is at least equivalent in terms of usefulness, attractiveness, quality and accessibility, and where of an appropriate quantity, to existing and future users is provided on another site agreed with the council prior to development commencing; or
 - iii) replacement on another site is neither practicable or possible an agreed contribution is made to the council for new provision or the improvement of existing greenspace or outdoor sport and recreation facilities and its maintenance within an appropriate distance from the site or within the site.
- 5. Development impact on Natura 2000 (N2K) sites must be considered case-by case.

Also, Sunderland's Green Infrastructure Strategy aims to:

- Protect, Enhance and Repair Strategic GI Corridors: Ensure that the network integrity is safeguarded and enhanced, unblock existing barriers to repair connectivity.
- Address GI investments – applying the evidence base, maximising multifunctionality and greatest returns, application to funding/resources opportunities.
- Future proofing / ensuring new growth is sustainable
- Identify stakeholders and work in partnerships: establish a Sunderland GI stakeholder network, cross boundary working
- Identify delivery mechanisms and secure funding streams: planning applications, growth and development, grants, a triage approach.
- Increase awareness of GI benefits: actively marketing Sunderland's GI assets, educating and advocating GI
- Policy aims/aspirations: citywide regeneration (e.g., improving health, access, quality of life, biodiversity, climate change mitigation and adaptation).

Comment

In addition to the above, the North East Community Forest (NECF) Partnership aims to plant 500 hectares of trees by 2025, and double canopy cover in the region by 2050.

The NECF was launched in February 2022 and during the first planting season for the NECF (2021/22), Sunderland planted 8462 whips; 90 orchard trees (to encourage local growing); 6777 hedge plants across 1360 metres; 7.37ha of wildflower meadow seeding. During the second planting season (2022/23), Sunderland planted 2000 whips; 487 street trees / public realm standard trees; 189 orchard trees; 2412 hedge plants across 400m; 2.48ha of wildflower meadow seeding; 14000 bulbs. Sunderland aims to deliver at least 13ha of new tree planting in 2023/24

5. Mitigation Targets

(5.1) Does your jurisdiction have an active greenhouse gas emissions reduction target(s) in place? Please include long-term and/or mid-term targets. If no active GHG emissions reduction target is in place, please indicate the primary reason why.

Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)

(5.1a) Provide details of your emissions reduction target(s). Please report both long-term and mid-term targets, if applicable.

Select a reference ID for the target

Target 1

Target type (selection mandatory)^

Base year emissions (absolute) target

Boundary of target relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Emissions sources covered by target^

Target covers all the emissions sources which are included in the jurisdiction inventory

Are carbon credits currently used or planned to be used to achieve this target?^

Yes, this target will be achieved using carbon credits and the number of credits required has been quantified

Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary^

3.7

Year target was established

2019

Covered emissions in year target was established (metric tonnes CO2e)

1161312

Base year^

2015

Covered emissions in base year (metric tonnes CO2e)^

1377764

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)^

<Not Applicable>

Target year^

2040

Estimated business as usual emissions in target year (metric tonnes CO2e)^

<Not Applicable>

Percentage of emissions reduction (including offsets and carbon dioxide removal)^

100

Net emissions in target year (after offsets and carbon dioxide removal) [auto-calculated]

0

Net emissions in target year (after offsets and carbon dioxide removal) (metric tonnes CO2e)^

<Not Applicable>

Projected population in target year

275624

Please ensure you make two selections in this column. Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to.

Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Tyndall Centre
--	----------------

Covered emissions in most recent inventory (metric tonnes CO2e)

1089313

Is this target the jurisdiction's most ambitious target?

Yes

Alignment with Nationally Determined Contribution

This target is more ambitious than the Nationally Determined Contribution

Select the conditional components of your emissions reduction target

Target is conditional on mitigation in emissions sources that are controlled by a higher level of government

Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration

Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government

Target is conditional on additional state or regional/national legislation, regulation and/or policy

Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.)

Target is conditional on the decarbonization of the electricity grid that is outside the direct control of jurisdiction administration

Target is conditional on the implementation of carbon capture and storage (CCS) technology

Target is conditional on the development or scaling up of other innovative technologies

Please explain[^]

Our overarching science-based city-wide target suggested by the Tyndall Centre is to achieve carbon neutral status by 2040 and stay within a carbon budget of 8.2 million tonnes for the period 2020-2100. More information can be found at <https://carbonbudget.manchester.ac.uk/reports/E08000024/print/>.

Sunderland_Low_Carbon_Framework1.pdf

Select a reference ID for the target

Target 2

Target type (selection mandatory)[^]

Base year emissions (absolute) target

Boundary of target relative to jurisdiction boundary[^]

Same - covers entire jurisdiction and nothing else

Emissions sources covered by target[^]

Target covers all the emissions sources which are included in the jurisdiction inventory

Are carbon credits currently used or planned to be used to achieve this target?[^]

No, this target will not use carbon credits

Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary[^]

<Not Applicable>

Year target was established

2019

Covered emissions in year target was established (metric tonnes CO2e)

1161312

Base year[^]

2015

Covered emissions in base year (metric tonnes CO2e)[^]

1377764

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)[^]

<Not Applicable>

Target year[^]

2020

Estimated business as usual emissions in target year (metric tonnes CO2e)[^]

<Not Applicable>

Percentage of emissions reduction (including offsets and carbon dioxide removal)[^]

16.1

Net emissions in target year (after offsets and carbon dioxide removal) [auto-calculated]

1155943.996

Net emissions in target year (after offsets and carbon dioxide removal) (metric tonnes CO2e)[^]

<Not Applicable>

Projected population in target year

277540

Please ensure you make two selections in this column. Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to.

Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Tyndall Centre
--	----------------

Covered emissions in most recent inventory (metric tonnes CO2e)

1089313

Is this target the jurisdiction's most ambitious target?

No, but it is a mid-term target for the most ambitious target

Alignment with Nationally Determined Contribution

This target is as ambitious as the Nationally Determined Contribution

Select the conditional components of your emissions reduction target

This target is not conditional on the success of an externality or component of policy outside of direct control of jurisdiction administration

Target is conditional on mitigation in emissions sources that are controlled by a higher level of government

Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration

Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government

Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.)

Target is conditional on the decarbonization of the electricity grid that is outside the direct control of jurisdiction administration

Target is conditional on the development or scaling up of other innovative technologies

Please explain[^]

This is an interim base-year target suggested by the Tyndall Centre, which will keep us in-line to achieve our long-term goal of carbon neutral city status by 2040, and stay within a carbon budget of 8.2 million tonnes for the period 2020-2100. More information can be found at <https://carbonbudget.manchester.ac.uk/reports/E08000024/print/>. Sunderland achieved this target.

Select a reference ID for the target

Target 3

Target type (selection mandatory)[^]

Base year emissions (absolute) target

Boundary of target relative to jurisdiction boundary[^]

Same - covers entire jurisdiction and nothing else

Emissions sources covered by target[^]

Target covers all the emissions sources which are included in the jurisdiction inventory

Are carbon credits currently used or planned to be used to achieve this target?^{^^}

No, this target will not use carbon credits

Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary[^]

<Not Applicable>

Year target was established

2019

Covered emissions in year target was established (metric tonnes CO2e)

1161312

Base year[^]

2015

Covered emissions in base year (metric tonnes CO2e)[^]

1377764

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)[^]

<Not Applicable>

Target year[^]

2025

Estimated business as usual emissions in target year (metric tonnes CO2e)[^]

<Not Applicable>

Percentage of emissions reduction (including offsets and carbon dioxide removal)[^]

61.5

Net emissions in target year (after offsets and carbon dioxide removal) [auto-calculated]

530439.14

Net emissions in target year (after offsets and carbon dioxide removal) (metric tonnes CO2e)[^]

<Not Applicable>

Projected population in target year

277445

Please ensure you make two selections in this column. Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to.

Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Tyndall Centre
--	----------------

Covered emissions in most recent inventory (metric tonnes CO2e)

1089313

Is this target the jurisdiction's most ambitious target?

No, but it is a mid-term target for the most ambitious target

Alignment with Nationally Determined Contribution

This target is more ambitious than the Nationally Determined Contribution

Select the conditional components of your emissions reduction target

Target is conditional on mitigation in emissions sources that are controlled by a higher level of government

Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration

Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government

Target is conditional on additional state or regional/national legislation, regulation and/or policy

Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.)

Target is conditional on the decarbonization of the electricity grid that is outside the direct control of jurisdiction administration

Target is conditional on the implementation of carbon capture and storage (CCS) technology

Target is conditional on the development or scaling up of other innovative technologies

Please explain^

This is an interim base-year target suggested by the Tyndall Centre, which will keep us in-line to achieve our long-term goal of carbon neutral city status by 2040 and stay within a carbon budget of 8.2 million tonnes for the period 2020-2100. This is a suggested science-based decarbonisation target for 2025 relative to a 2015 baseline. It is currently unknown whether the city can achieve this target without the use of carbon credits. More information can be found at <https://carbonbudget.manchester.ac.uk/reports/E08000024/print/>.

Select a reference ID for the target

Target 4

Target type (selection mandatory)^

Base year emissions (absolute) target

Boundary of target relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Emissions sources covered by target^

Target covers all the emissions sources which are included in the jurisdiction inventory

Are carbon credits currently used or planned to be used to achieve this target?^

We do not know if this target will be achieved using carbon credits

Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary^

<Not Applicable>

Year target was established

2019

Covered emissions in year target was established (metric tonnes CO2e)

1161312

Base year^

2015

Covered emissions in base year (metric tonnes CO2e)^

1377764

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)^

<Not Applicable>

Target year^

2030

Estimated business as usual emissions in target year (metric tonnes CO2e)^

<Not Applicable>

Percentage of emissions reduction (including offsets and carbon dioxide removal)^

82.4

Net emissions in target year (after offsets and carbon dioxide removal) [auto-calculated]

242486.464

Net emissions in target year (after offsets and carbon dioxide removal) (metric tonnes CO2e)^

<Not Applicable>

Projected population in target year

276925

Please ensure you make two selections in this column. Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to.

Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Tyndall Centre
--	----------------

Covered emissions in most recent inventory (metric tonnes CO2e)

1089313

Is this target the jurisdiction's most ambitious target?

No, but it is a mid-term target for the most ambitious target

Alignment with Nationally Determined Contribution

This target is more ambitious than the Nationally Determined Contribution

Select the conditional components of your emissions reduction target

Target is conditional on mitigation in emissions sources that are controlled by a higher level of government

Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration

Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government

Target is conditional on additional state or regional/national legislation, regulation and/or policy

Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.)

Target is conditional on the decarbonization of the electricity grid that is outside the direct control of jurisdiction administration

Target is conditional on the implementation of carbon capture and storage (CCS) technology

Target is conditional on the development or scaling up of other innovative technologies

Target is conditional on a reduction in emissions from air travel that is outside the direct control of jurisdiction administration

Please explain^

This is an interim base-year target suggested by the Tyndall Centre, which will keep us in-line to achieve our long-term goal of carbon neutral city status by 2040, and stay

within a carbon budget of 8.2 million tonnes for the period 2020-2100. This is a suggested science-based decarbonisation target for 2030 relative to a 2015 baseline. It is currently unknown whether the city can achieve this target without the use of carbon credits. More information can be found at <https://carbonbudget.manchester.ac.uk/reports/E0800024/print/>.

Select a reference ID for the target

Target 5

Target type (selection mandatory)^

Base year emissions (absolute) target

Boundary of target relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Emissions sources covered by target^

Target covers all the emissions sources which are included in the jurisdiction inventory

Are carbon credits currently used or planned to be used to achieve this target?^

We do not know if this target will be achieved using carbon credits

Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary^

<Not Applicable>

Year target was established

2019

Covered emissions in year target was established (metric tonnes CO2e)

1161312

Base year^

2015

Covered emissions in base year (metric tonnes CO2e)^

1377764

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)^

<Not Applicable>

Target year^

2035

Estimated business as usual emissions in target year (metric tonnes CO2e)^

<Not Applicable>

Percentage of emissions reduction (including offsets and carbon dioxide removal)^

91.9

Net emissions in target year (after offsets and carbon dioxide removal) [auto-calculated]

111598.884

Net emissions in target year (after offsets and carbon dioxide removal) (metric tonnes CO2e)^

<Not Applicable>

Projected population in target year

276204

Please ensure you make two selections in this column. Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to.

Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Tyndall Centre
--	----------------

Covered emissions in most recent inventory (metric tonnes CO2e)

1089313

Is this target the jurisdiction's most ambitious target?

No, but it is a mid-term target for the most ambitious target

Alignment with Nationally Determined Contribution

This target is more ambitious than the Nationally Determined Contribution

Select the conditional components of your emissions reduction target

Target is conditional on mitigation in emissions sources that are controlled by a higher level of government

Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration

Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government

Target is conditional on additional state or regional/national legislation, regulation and/or policy

Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.)

Target is conditional on the decarbonization of the electricity grid that is outside the direct control of jurisdiction administration

Target is conditional on the implementation of carbon capture and storage (CCS) technology

Target is conditional on the development or scaling up of other innovative technologies

Target is conditional on a reduction in emissions from air travel that is outside the direct control of jurisdiction administration

Please explain^

This is an interim base-year target suggested by the Tyndall Centre, which will keep us in-line to achieve our long-term goal of carbon neutral city status by 2040, and stay within a carbon budget of 8.2 million tonnes for the period 2020-2100. This is a suggested science-based decarbonisation target for 2020 relative to a 2015 baseline. It is currently unknown whether the city can achieve this target without the use of carbon credits. More information can be found at <https://carbonbudget.manchester.ac.uk/reports/E0800024/print/>.

(5.1b) Provide details on the current or planned use of carbon credits sold to or purchased from outside the jurisdiction or target boundary.

Type of carbon credits

Other, please specify (See comment section)

Identify target

Target 1

Emissions purchased/sold (metric tonnes CO2e)

Verified to which standard

Do not know

Outline the crediting period and country(ies)/area(s) where offsetting efforts are or will be taking place

Do not know.

Comment

Sunderland already benefits from some natural offsetting. In 2021, the Land Use, Land Use Change and Forestry (LULUCF) sector sequestered a net 8,479tCO2 from forest and grassland. Sunderland City Council are currently working to implement the Green Infrastructure Strategy and the Green Infrastructure Action and Delivery Plan, in addition to a number of tree planting projects such as the North East Community Forest. This will also increase natural offsetting.

Aside this, and in line with science-based recommendations provided by the Tyndall Centre and the Council's recent commitment to UK100 to achieve net zero GHGs, Sunderland's priority is currently to reduce emissions at source before looking to offset or purchase carbon credits. However, it is widely acknowledged that Sunderland will have some unavoidable emissions and will look to explore the concept of carbon credits in the future.

6. Sector Targets

(6.1) Provide details of your jurisdiction's energy-related targets active in the reporting year. In addition, you can report other climate-related targets active in the reporting year.

Target type (selection mandatory)^

Building specific emissions reduction target	Other buildings emissions target, please specify (Council scope 1 & 2 greenhouse gas emissions)
--	---

Target description

Sunderland City Council are aiming to become net carbon neutral across scope 1 and 2 emissions by 2030. This consists of the Council's operations - including vehicle fleet and buildings within financial control.

Boundary of target relative to jurisdiction boundary^

Government operations – covers only functions owned and operated by jurisdictions government

Year target was established

2020

Base year^

2017

Metric used to measure target (renewable energy or energy efficiency target)^

<Not Applicable>

Metric used to measure target^

Tonnes CO2e

Metric value in base year^

45300.61

Target year^

2030

Metric value in target year^

0

Metric value in most recent year data is available

8545.93

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (https://sunderland.gov.uk/media/22959/Sunderland-Low-Carbon-Framework/pdf/Sunderland_Low_Carbon_Framework1.pdf?m=637461416504170000)

Progress made towards target

When Sunderland City Council's Low Carbon Action Plan was adopted in January 2021, the Council went through the process of understanding its baseline position regarding its operational and indirect carbon emissions. This baseline position can be found in the Council's most recent annual carbon data report, available at https://www.mysunderland.co.uk/media/28480/Carbon-Emissions-Report-21-22/pdf/Carbon_Emissions_Report_21-22_-_Final.pdf?m=638046389614100000. The Council is committed to producing the data report annually.

During the 2021/22 financial year the Council's overall emissions were 7,498 tonnes of Carbon Dioxide equivalent (7,498tCO2e,) representing a 12.4% reduction from the previous year and a 58.5% reduction since 2017/18.

The Greenhouse Gas Protocol advises organisations to prioritise making reductions in scope 1 and 2 emissions due to a higher degree of control. The figures represented in this table represent the Council's scope 1 and 2 emissions, currently comprising of emissions from the vehicle fleet, gas consumption, and the generation of purchased electricity across the operational estate.

The Council is also going through the process of better understanding its scope 3 emissions. Based on current data availability, scope 3 emissions for the Council are estimated to have accounted for 37,803tCO2e in 2021/22 (70% of overall emissions). The Council aims to reduce these value-chain emissions where possible on its Low Carbon journey.

Target type (selection mandatory)^

Renewable energy consumption target	Increase proportion of electricity consumed from renewable sources
-------------------------------------	--

Target description

In 2015 Sunderland City Council signed a pledge to UK100, committing to 100% clean energy by 2050. The Council currently consider this to cover electricity, heating and cooling across the operational estate.

Boundary of target relative to jurisdiction boundary^

Government operations – covers only functions owned and operated by jurisdictions government

Year target was established

2015

Base year^

2015

Metric used to measure target (renewable energy or energy efficiency target)^

Percentage (%)

Metric used to measure target^

Percentage

Metric value in base year^

Target year^

2050

Metric value in target year^

100

Metric value in most recent year data is available

66.2

Percentage of total energy that is renewable in target year

100

Is this target publicly available?

Yes, provide link/attachment (<https://www.uk100.org/100-clean-energy-2050-pledge>)

Progress made towards target

Sunderland City Council's electricity now comes from 100% nuclear sources. This 66.2% figure represents the Council's operational electricity consumption (for buildings within the Council's financial control and streetlighting) as a percentage of total operational energy consumption (also including gas) in the 2022/23 financial year.

Target type (selection mandatory)^

Energy efficiency targets	Increase energy efficiency of buildings (residential buildings)
---------------------------	---

Target description

Riverside Sunderland domestic energy targets

Boundary of target relative to jurisdiction boundary^

Smaller - covers only part of the jurisdiction, please explain exclusions (Covers the Riverside Sunderland urban quarter only.)

Year target was established

2020

Base year^

2020

Metric used to measure target (renewable energy or energy efficiency target)^

Other, please specify (Several metrics listed in 'progress' column)

Metric used to measure target^

Several metrics listed in 'progress' column

Metric value in base year^

Target year^

2030

Metric value in target year^

Metric value in most recent year data is available

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (<https://www.riversidesunderland.com/>)

Progress made towards target

Reducing energy consumption and using clean energy is a key aspect of the Riverside Sunderland Masterplan. A range of targets for both domestic and non-domestic buildings are set out for both 2025 and 2030 to reduce operational energy, reduce space heating demand, increase renewable generation on roofs, reduce embodied carbon, and decrease portable water use

For all new domestic property the targets from 2020 - 2030 are:

- Reduce operational energy from 105kWh/m²/y in 2020 to ≤ 35kWh/m²/y.
- Reduce space heating demand to 15kWh/m²/y.
- Achieve peak heat loss of 10W/m².
- Use 70% of small scale housing roofs for renewable energy generation.
- Reduce embodied carbon from 600kgCO₂e/m² to 300kgCO₂e/m².
- Reduce portable water use from 110l/p/d to 75l/p/d.

Target type (selection mandatory)^

Energy efficiency targets	Increase energy efficiency of buildings (government-owned buildings)
---------------------------	--

Target description

Riverside Sunderland non-domestic energy targets.

Boundary of target relative to jurisdiction boundary^

Smaller - covers only part of the jurisdiction, please explain exclusions (Covers the Riverside Sunderland urban quarter only.)

Year target was established

2020

Base year^

2020

Metric used to measure target (renewable energy or energy efficiency target)^

Other, please specify (Several metrics listed in progress column)

Metric used to measure target^

Several metrics listed in progress column

Metric value in base year^

Target year^

2030

Metric value in target year^

Metric value in most recent year data is available

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (<https://www.riversidesunderland.com/>)

Progress made towards target

Reducing energy consumption and using clean energy is a key aspect of the Riverside Sunderland Masterplan. A range of targets for both domestic and non-domestic buildings are set out for both 2025 and 2030 to reduce operational energy, reduce space heating demand, increase renewable generation on roofs, reduce embodied carbon, and decrease portable water use.

For non-domestic property the targets from 2020 – 2030 are:

- Reduce operational energy from 170kWh/m²/y in 2020 to 0-55kWh/m²/y in 2030.
- Reduce space heating demand from to 15kWh/m²/y in 2030.
- Achieve peak heat loss of 10W/m².
- Using renewable sources, generate the annual energy requirement for at least 2 floors of developments on-site.
- Reduce embodied carbon from 800kgCO₂e/m² in 2020 to 500kgCO₂e/m² in 2030.
- Reduce portable water use from 16l/p/d in 2020 to 10l/p/d in 2030.

Target type (selection mandatory)^

Energy efficiency targets	Increase energy efficiency of buildings (residential buildings)
---------------------------	---

Target description

Energy efficiency – EPC ratings

Boundary of target relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (National target)

Year target was established

2025

Base year^

2025

Metric used to measure target (renewable energy or energy efficiency target)^

Other, please specify (EPC ratings)

Metric used to measure target^

EPC ratings

Metric value in base year^

Target year^

Metric value in target year^

Metric value in most recent year data is available

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (<https://publications.parliament.uk/pa/bills/cbill/58-02/0150/210150.pdf>)

Progress made towards target

The Domestic Minimum Energy Efficiency Standard (MEES) Regulations set a minimum energy efficiency level for domestic private rented properties. Since 1 April 2020, landlords can no longer let or continue to let properties covered by the MEES Regulations if they have an EPC rating below E, unless they have a valid exemption in place.

National regulations will change in the UK to mean all new tenancies must have an energy performance certificate (EPC) rating of at least Band C from 31 December 2025. For existing tenancies, this will apply from 31 December 2028.

The average EPC rating of Sunderland homes is currently D61, which is slightly worse than the national average for England of D66. There are 18,000 homes in Sunderland with E, F or G EPC ratings, indicating low energy efficiency levels. These properties are a priority for retrofitting. There are also 37,000 properties in Sunderland without a registered EPC, making it difficult to measure the scale of the retrofit challenge.

Target type (selection mandatory)^

Waste target	Target to increase the total waste generated that is recycled
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Target description

As part of the South Tyne and Wear Waste Management Partnership's (STWWMP) Joint Municipal Waste Management Strategy, Sunderland aim to increase household recycling rates to 55% by 2025, 60% by 2030 and 65% by 2035.

Boundary of target relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (STWWMP target informed by national target)

Year target was established

2021

Base year^

2018

Metric used to measure target (renewable energy or energy efficiency target)^

<Not Applicable>

Metric used to measure target^

Percentage (%)

Metric value in base year^

28

Target year^

2035

Metric value in target year^

65

Metric value in most recent year data is available

28

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (<https://www.sunderland.gov.uk/media/23945/Waste-Management-Strategy-2021-25/pdf/STWWPWasteManagementStrategy202125.pdf?m=637859771360670000>)

Progress made towards target

Together with neighbouring authorities South Tyneside and Gateshead, Sunderland is part of the South Tyne & Wear Waste Management Partnership (STWWMP), which published its Joint Municipal Waste Strategy 2021-2025 in 2021. As part of the Joint Municipal Waste Strategy, Sunderland City Council aims to increase household recycling rates to 55% by 2025, 60% by 2030 and 65% by 2035, in line with the European Commission 'Circular Economy Package'.

In the 2014/15 financial year the recycling rate was 31.88%. This rate experienced a downward fluctuation until 2020/21 where it had a low peak of 26.6%. However, during 2021-22 (the most recent year data is available), recycling rates increased to 29.1% - the highest they had been since 2015-16.

Target type (selection mandatory)^

AFOLU target	Target to increase reforestation
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Target description

One of the main goals of the North East Community Forest is to double tree canopy cover in the Tyne & Wear and County Durham.

Boundary of target relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (County Durham, Gateshead, Newcastle-upon-Tyne, North Tyneside, Sunderland and

South Tyneside)

Year target was established

2021

Base year^

2021

Metric used to measure target (renewable energy or energy efficiency target)^

<Not Applicable>

Metric used to measure target^

Woodland Cover (%)

Metric value in base year^

18.4

Target year^

2050

Metric value in target year^

30

Metric value in most recent year data is available

18.4

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (<https://www.newcastle.gov.uk/northeastcommunityforest>)

Progress made towards target

In 2020 the UK had a woodland area of 3.21 million hectares, representing 13% of its land area. In contrast, France, Germany and Spain have woodland cover of 31%, 33% and 37% respectively. England’s woodland cover is only 1/4 of that across the rest of Europe.

Across the NECF area, woodland cover is just 8.3%.

The IPCC advises the UK government to significantly increase its overall woodland cover from 13% to 17% by 2050, and ideally, 19% to support the transition to net zero. The NECF Partnership aims to double tree canopy cover, and plant 500 hectares, by 2025.

Sunderland carried out an i-tree canopy cover assessment in 2021 and the total canopy cover across the local authority area is 18.4%. The NECF 2050 target is to achieve 30% tree canopy cover across the forest area.

The NECF was launched in February 2022. In the first planting season (2021/22), Sunderland planted 8462 whips; 90 orchard trees (to encourage local growing); 6777 hedge plants across 1360 metres; 7.37ha of wildflower meadow seeding. In the second planting season (2022/23), Sunderland planted 2000 whips; 487 street trees / public realm standard trees; 189 orchard trees; 2412 hedge plants across 400m; 2.48ha of wildflower meadow seeding; 14000 bulbs. Sunderland aims to deliver 13ha of new tree planting in 2023/24.

In addition to NECF tree planting:

- In 2021/22 Sunderland planted 61 standard trees and 783 whips after securing £50,000 through the Local Authority Treescapes Fund Round 1 (LATF1).
- In 2021/22 2,500 whips / street trees were planted as part of the Sunderland Strategic Transport Corridor 3 project.
- In 2021/22 two community tree planting events took place – both at Elemore Park. The first one in December involved 60 children (from 6 different schools) and they helped to plant 420 trees. The second one in March involved 38 volunteers, helping to plant 400 trees.
- In 2022/23 Sunderland planted 68 standard trees after securing £70,000 through the Local Authority Treescapes Fund Round 2 (LATF2).
- As in 2021/22, two community tree planting events took place in March 2023. The first event at Downhill Sports Complex involved 15 volunteers who helped to plant over 300 trees; the second event was held at St Mary’s RC primary School where 25 children and 10 volunteers carried out a tree planting ceremony, planting 1 heavy standard tree, and 100 hedgerow whips.

Target type (selection mandatory)^

Transport target	Modal share targets
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Target description

Through the North East Bus Service Improvement Plan (BSIP), the North East Joint Transport Committee (NEJTC) aim to increase bus patronage. This includes increasing ridership in the region to the pre-pandemic level of 162.4 million trips by March 2023. After this, NEJTC aim for 20% growth by March 2025. NEJTC also aim to increase the modal share of buses by 2% by March 2025.

In addition, NEJTC aim to increase rail travel through the North East Metro and Rail Strategy.

Sunderland City Council also wish to increase walking and cycling modal share through its Local Cycling and Walking Infrastructure Plan in addition to the use of electric vehicles through its upcoming Electric Vehicle Strategy.

Boundary of target relative to jurisdiction boundary^

Larger - covers the whole jurisdiction and adjoining areas, please explain additions (Covers Sunderland, Newcastle, Gateshead, South Tyneside, North Tyneside, Northumberland and County Durham)

Year target was established

2022

Base year^

2019

Metric used to measure target (renewable energy or energy efficiency target)^

<Not Applicable>

Metric used to measure target^

%

Metric value in base year^

6.4

Target year^

2025

Metric value in target year^

8.4

Metric value in most recent year data is available

6.4

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (https://www.transportnortheast.gov.uk/wp-content/uploads/2021/10/TNE-BSIP_FINAL.pdf)

Progress made towards target

To be confirmed in future submissions.

Planning

7. Planning

Climate Action Planning

(7.1) Does your jurisdiction have a climate action plan or strategy that addresses mitigation, adaptation (resilience), and/or energy?

Yes, our jurisdiction has a climate action plan or strategy

(7.1a) Report details on the climate action plan or strategy that addresses mitigation, adaptation (resilience), and/or energy-related issues in your jurisdiction.

Climate action plan type^

Integrated climate plan (addressing mitigation, adaptation and energy-related issues)

Attachment/link and name of plan^

https://www.sunderland.gov.uk/media/22959/Sunderland-Low-Carbon-Framework/pdf/Sunderland_Low_Carbon_Framework1.pdf?m=637461416504170000
Sunderland_Low_Carbon_Framework1.pdf

Confirm attachment/link provided to plan (selection mandatory)

The plan has been attached and can be accessed (unrestricted) on the link provided

Boundary of plan relative to jurisdiction boundary^

Same (jurisdiction-wide) covers entire jurisdiction and nothing else

Processes for monitoring evaluation and updates of plan^

Monitoring: Information on progress of plan is monitored and publicly reported annually

Evaluation: Evaluation of plan takes place annually

Update: Updates to the plan are published at least every 3 years

Funding sources and financial instruments to finance plan

Jurisdiction's own resources

Regional funds and programmes

National funds and programmes

International (including ODA)

Public-private partnerships

Communities and organizations engaged^

Local government (s) and/or agencies

Citizens

Vulnerable population groups

Business and private sector

Non-governmental organisations

Describe if and how climate-related scenarios have informed the plan

The Tyndall Centre (<https://carbonbudget.manchester.ac.uk/reports/E08000024/print/>), presents climate mitigation targets for Sunderland that are derived from the commitments of the Paris Agreement and informed by science-based climate change evidence. The report provides Sunderland with budgets for CO2 emissions from the energy system for 2020 to 2100. For Sunderland to make its fair contribution towards the Paris Agreement, the Tyndall Centre made the following science-based recommendations Sunderland to:

- Stay within a maximum cumulative CO2 emissions budget of 8.2 million tonnes for the period of 2020 to 2100.
- Initiate an immediate programme of CO2 mitigation to deliver cuts in emissions averaging a minimum of -14.4% per year to deliver a Paris aligned carbon budget.
- Reach zero or near zero carbon no later than 2040. The report provides an indicative CO2 reduction pathway that stays within the recommended maximum carbon budget

of 8.2 MtCO₂. In 2040 5% of the budget remains, representing very low levels of residual CO₂ emissions by this time.

Recent local extreme weather events also inform climate action in Sunderland. For example, Storm Arwen brought high winds, heavy rain and snow to Sunderland in November 2021. Homes, businesses and green infrastructure were damaged and public transport networks were suspended. There were 600 reports of storm damage and more than 85 fallen trees.

- Houses were damaged at Gloucester Avenue, Fulwell and Benedict Road, Roker, Sea Road, Hendon and South Hylton.
- A tree blocked the A690 Durham Road at Bede Bank and another blocked Chester Road near the cemetery.
- Structural damage to 28 properties, mainly involving walls and gable ends.
- 240,000 were left without electricity.
- Tyne and Wear Fire and Rescue Service took more than 500 weather related calls in 24 hours.
- Gentoo housing group faced costs of storm damages up to £2 million.

With extreme weather events likely to become more frequent and intense in the future, this increases the importance of climate action.

The Council's most recent annual Carbon Report (available at https://www.mysunderland.co.uk/media/28480/Carbon-Emissions-Report-21-22/pdf/Carbon_Emissions_Report_21-22_-_Final.pdf?m=638046389614100000) evaluates the progress made towards achieving the citywide decarbonisation goals.

Primary author(s) of plan[^]

Dedicated team within jurisdiction

Assessment of co-benefits, trade-offs, and synergies of actions included in plan[^]

Plan assesses co-benefits of actions

Plan assesses trade-offs of actions

Plan assesses synergies of actions

Year of formal approval of plan[^]

2020

End year of plan

2040

Total cost of implementation of plan (in currency specified in 0.1)

Sectors covered by action plan

Agriculture

Forestry

Electricity, gas, steam and air conditioning supply

Water supply

Waste management

Conservation

Construction

Transportation and storage

Real estate activities

Education

Human health and social work activities

Please explain

The Low Carbon Framework sets out the vision, purpose and directions of actions necessary to enable the city to deliver on Sunderland's carbon neutrality goals.

The Low Carbon Framework was adopted in December 2020 by the City partnership Board, on the recommendation of the 2030 Shadow Board, and subsequently endorsed by Sunderland City Council's Cabinet in January 2021 and at the same time adopted its Low Carbon Action Plan (LCAP) which included a target for the Council to become carbon neutral by 2030. The Council has also since developed a more robust version of its own LCAP, which was approved by Cabinet in July 2022 and is available at https://www.seeitdoitsunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000. Progress in relation to the Council's LCAP is regularly reviewed as well as being reported annually to Cabinet. Details regarding the Council's LCAP are covered in the next question.

Shadow Board partners are working collectively to drive Sunderland's commitment to tackling climate change. The partnership meets quarterly to ensure that best practice is shared, that duplication is avoided, and that resource efficiency, joint working and impact are maximised. Each partner is also developing their own Low Carbon Action Plan and carrying out initiatives to enable the city to reach its low carbon goals. The Low Carbon Framework is underpinned by these individual partner Action Plans

Climate action plan type[^]

Standalone adaptation plan

Attachment/link and name of plan[^]

Sunderland Local Flood Risk Management Strategy (available at https://www.sunderland.gov.uk/media/23162/Local-flood-risk-management-strategy/pdf/Sunderland_LFRMS_-_Final_Version_-_Complete.pdf?m=637502096317830000)

Sunderland_LFRMS_-_Final_Version_-_Complete.pdf

Confirm attachment/link provided to plan (selection mandatory)

The plan has been attached and can be accessed (unrestricted) on the link provided

Boundary of plan relative to jurisdiction boundary[^]

Same (jurisdiction-wide) covers entire jurisdiction and nothing else

Processes for monitoring evaluation and updates of plan[^]

Monitoring: Information on progress of plan is monitored and publicly reported annually

Evaluation: Evaluation of plan takes place annually

Update: Updates to the plan are published at least every 5 years

Funding sources and financial instruments to finance plan

Jurisdiction's own resources

Communities and organizations engaged[^]

Local government (s) and/or agencies

Citizens

Vulnerable population groups

Business and private sector

Non-governmental organisations

Describe if and how climate-related scenarios have informed the plan

Flooding is the most significant climate hazard in Sunderland with coastal, river and surface water flooding all being hazards to residents and the economy as identified in the climate risk and vulnerability module. Furthermore, it is expected that the frequency and intensity of flooding events in the jurisdiction will increase in the event of 1.5°C global warming being exceeded.

Sunderland prepares a Local Flood Risk Management Strategy. The purpose of the LFRMS is to act as a robust guidance tool for Risk Management Authorities operating in Sunderland to deliver a coordinated, improved approach in all flood risk management activities. In addition, the overriding vision for the LFRMS is for Sunderland City Council to take a lead role in better understanding local flood risk. Providing this information in the form of the LFRMS will enable communities to also improve their own knowledge and understanding of the risk of flooding across Sunderland.

More information can be found at https://www.sunderland.gov.uk/media/23162/Local-flood-risk-management-strategy/pdf/Sunderland_LFRMS_-_Final_Version_-_Complete.pdf?m=637502096317830000

Primary author(s) of plan^

Dedicated team within jurisdiction

Assessment of co-benefits, trade-offs, and synergies of actions included in plan^

Plan assesses co-benefits of actions

Plan assesses trade-offs of actions

Plan assesses synergies of actions

Year of formal approval of plan^

2016

End year of plan

Total cost of implementation of plan (in currency specified in 0.1)

Sectors covered by action plan

Agriculture

Forestry

Water supply

Sewerage, wastewater management and remediation activities

Construction

Education

Human health and social work activities

Other, please specify (public health; spatial planning; water; business; social services)

Please explain

Climate action plan type^

Standalone adaptation plan

Attachment/link and name of plan^

Sunderland Green Infrastructure Strategy, available at [https://www.sunderland.gov.uk/media/20889/SD-46-Sunderland-Green-Infrastructure-Strategy-2018-/pdf/SD.46_Sunderland_Green_Infrastructure_Strategy_\(2018\).pdf?m=636802959791130000](https://www.sunderland.gov.uk/media/20889/SD-46-Sunderland-Green-Infrastructure-Strategy-2018-/pdf/SD.46_Sunderland_Green_Infrastructure_Strategy_(2018).pdf?m=636802959791130000) and Sunderland Green Infrastructure Delivery and Action Plan, available at https://www.sunderland.gov.uk/media/21396/EX1-017-Sunderland-Green-Infrastructure-Delivery-and-Action-Plan/pdf/EX1.017_Sunderland_Green_Infrastructure_-_Delivery_and_Action_Plan.pdf?m=636918745551330000
EX1.017_Sunderland_Green_Infrastructure_-_Delivery_and_Action_Plan.pdf
Sunderland Green Infrastructure Strategy 2018.pdf

Confirm attachment/link provided to plan (selection mandatory)

The plan has been attached and can be accessed (unrestricted) on the link provided

Boundary of plan relative to jurisdiction boundary^

Same (jurisdiction-wide) covers entire jurisdiction and nothing else

Processes for monitoring evaluation and updates of plan^

Monitoring: Information on progress of plan is monitored and publicly reported at least every 3 years

Evaluation: Evaluation of plan takes place annually

Update: Updates to the plan are published annually

Funding sources and financial instruments to finance plan

Jurisdiction's own resources

Regional funds and programmes

National funds and programmes

Communities and organizations engaged^

National government and/or agencies

Local government (s) and/or agencies

Citizens

Vulnerable population groups

Business and private sector

Non-governmental organisations

Describe if and how climate-related scenarios have informed the plan

Flooding, extreme heat and biodiversity loss are all likely to increase in frequency and intensity in the future. These increasing risks have increased the need for the provision of Green Infrastructure across Sunderland – in relation to climate change mitigation (offsetting) and climate change adaptation.

The Green Infrastructure Strategy aims to:

- Protect, Enhance and Repair the Strategic GI Corridors: Ensure that the integrity of the network is safeguarded and enhanced, unblock existing barriers to repair connectivity.
- Address GI investments – applying the evidence base, maximizing multifunctionality and greatest returns, application to funding/resources opportunities.
- Future proofing / ensuring new growth is sustainable

- Identify key stakeholders and promote partnership working: establish a Sunderland GI stakeholder network, cross boundary working
- Identify delivery mechanisms and secure funding streams: planning applications, growth and development, grants, a triage approach.
- Increase awareness of Sunderland's GI value and benefits: actively marketing Sunderland's GI assets, educating and advocating GI
- Policy aims and aspirations: regeneration across the city, such as improving health, access, quality of life, biodiversity, climate change mitigation (offsetting) and climate change adaptation.

To translate SGIS into a series of projects for delivery and action over the next 15 years, from 2018-2033, Sunderland has a Green Infrastructure Delivery and Action Plan. This sets out a range of actions, some of which include the development of a 'Green Infrastructure Offsetting Matrix', creating filter strips and natural swales, permeable paving, wetlands and woodlands wherever feasible to help cope with flash flooding, repairing broken corridors, creating reed beds at stream sources to slow down flash flooding, increasing woodland cover, and creating buffer zones to protected wildlife sites.

SGIS and Sunderland's Green Infrastructure Delivery and Action Plan help Sunderland mitigate and adapt to climate risk through nature-based solutions by: storing carbon; improving drainage and managing flooding; improving water quality; supporting adaptive management in coastal infrastructure; reducing air pollution; and increasing shading cover.

Green Infrastructure improvements proposed also seek to improve the cycle network across the city and access to local facilities on foot, thereby promoting and encouraging a modal shift to active transport.

Primary author(s) of plan^

Dedicated team within jurisdiction

Assessment of co-benefits, trade-offs, and synergies of actions included in plan^

Plan assesses co-benefits of actions

Plan assesses trade-offs of actions

Plan assesses synergies of actions

Year of formal approval of plan^

2018

End year of plan

2033

Total cost of implementation of plan (in currency specified in 0.1)

Sectors covered by action plan

Agriculture

Forestry

Water supply

Construction

Education

Human health and social work activities

Other, please specify (public health; spatial planning; social services; any sector which requires planning permissions.)

Please explain

Sector Action Planning

(7.2) Report details on the other climate-related plans, policies and/or strategies in your jurisdiction.

Area of plan, policy and/or strategy

Other, please specify (Sunderland City Plan)

Attachment/ link and name of plan

Sunderland City Plan, available at

[https://www.sunderland.gov.uk/media/21728/City-Plan-Sunderland-2019-2030/pdf/0ce21555_Council_Strategy_2030_Reformed_Presentation_v2.pdf?](https://www.sunderland.gov.uk/media/21728/City-Plan-Sunderland-2019-2030/pdf/0ce21555_Council_Strategy_2030_Reformed_Presentation_v2.pdf?m=637569323260530000)

m=637569323260530000

CityPlan23-35.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2023

End of year plan

2035

Comment

The Sunderland City Plan was updated in April 2023 and lists climate change as a key challenge, and consequently, one of the central commitments is that Sunderland will play its role in tackling climate change, working together across the city to be carbon neutral by 2040.

The City Plan has three central themes: a Dynamic Smart City; A Healthy Smart City and; a Vibrant Smart City. There is a set of commitments under each theme, a number of which successful climate change mitigation and adaptation can contribute towards.

Regarding a Dynamic Smart City, the objective is that by 2030 Sunderland will:

- Be a lower carbon city with greater digital connectivity for all.
- Be a stronger city centre with more businesses, housing and cultural opportunities.
- Have more and better housing.
- Have more and better jobs
- Have more local people with better qualifications and skills

Regarding a Healthy Smart City, the objective is that by 2030 Sunderland will:

- Have great transport links with low carbon and active travel opportunities for all
- Have equitable opportunities and the best life chances for children
- Have reduced health inequalities enabling more people to live healthier longer lives
- Be a cleaner and more attractive city.
- Provide high quality support and social care that enables those who need it to live the life they want to lead

Regarding a Vibrant Smart City, the objective is that by 2030 Sunderland will:

- Have more residents feeling proud of the city with more people active and participating in their communities
- Have residents who are more resilient to ongoing challenges including the cost-of-living crisis
- Have more people feeling safe in their homes and neighbourhoods and businesses benefitting from the city's safe and secure environment
- Have more people visiting Sunderland with businesses thriving and more residents shaping and participating in cultural events and activities

Area of plan, policy and/or strategy

Spatial development

Attachment/ link and name of plan

Sunderland Core Strategy and Development Plan (CSDP), available at https://www.sunderland.gov.uk/CSDP/CSDP_2015-2033.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2015

End of year plan

2033

Comment

The CSDP (part 1 of Sunderland's Local Plan) sets out citywide development plans to 2033 and has numerous policies that reflect Sunderland's environmental sustainability ambitions.

The CSDP has a spatial vision that Sunderland will be at the heart of a low carbon regional economy. Policy WWE1 ensures that the development of decentralised, renewable, and low carbon energy will be supported. Policy BH1 requires development to achieve high-quality design standards and maximise opportunities to create sustainable mixed-use developments and for the use of sunlight / solar energy. Policy BH2 requires the incorporation of sustainable design and construction methods, maximising efficient and clean energy.

Regarding adaptation, Policies WWE2 and WWE3 aim to reduce flood risk and implement sustainable coastal management. Policy NE1 also states development should apply climate change mitigation and adaptation measures, including flood and watercourse management.

Policy WWE4 aims to enhance water security, by requiring the quantity and quality of water bodies and bathing water to be protected, and where possible enhanced. Policy WWE4 also requires developments that discharge into a watercourse to incorporate pollution control measures, and developments which run adjacent to, over, or in a watercourse to consider opportunities to improve river environments and water quality where applicable.

Regarding waste, Policy WWE6 requires development to support waste minimisation, re-use and recovery.

The CSDP has a vision that Sunderland will have a high-quality natural environment and green infrastructure network. Policy BH2 requires major development to include opportunities to enhance biodiversity. Policy NE1 seeks to protect the environment by maintaining and improving green and blue infrastructure. Policy NE2 ensures that, where appropriate, development must demonstrate how it will provide biodiversity net gain and minimise adverse impacts on biodiversity in accordance with the mitigation hierarchy. Policy NE2 also aims to safeguard SSSIs, local wildlife sites, wildlife corridors and local nature reserves. Policy NE3 requires development to provide biodiversity net gain through woodlands, hedgerows and trees. Finally, Policy WWE4 ensures that development close to or in a main river or ordinary watercourse should consider opportunities to improve the river environment and water quality by improving the biodiversity and ecological connectivity of the watercourse.

Area of plan, policy and/or strategy

Spatial development

Attachment/ link and name of plan

Allocations and Designations Plan
available at https://www.sunderland.gov.uk/media/22878/AD-01-Allocations-and-Designations-Plan-2020/pdf/AD.01_Allocations_and_Designations_Plan_20201.pdf?m=637435558267800000,
AD.01_Allocations_and_Designations_Plan_20201.pdf

Current status of plan

Plan update in progress

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2020

End of year plan

2033

Comment

The draft A&D Plan forms the final part of the Sunderland Local Plan. It contains a range of allocations and designations covering housing, retail, heritage, the natural environment, transport, wind energy and minerals, to help to deliver on the strategic priorities from the CSDP.

To support the overall development strategy set out in the CSDP, the draft A&D Plan proposes to:

- allocate 58 sites for residential development including a strategic allocation at Riverside Sunderland
- focus regeneration and new development at North East Washington

- allocate the former Houghton Colliery site as a development opportunity and extension to Houghton Town Centre;
- designate heritage assets;
- protect the natural environment by designating areas for protection and enhancement;
- identify land suitable for wind energy development to support a move towards a low carbon future;
- safeguard land for the future expansion of the Metro network, including potential park and ride locations; and
- safeguard Eppleton Quarry to ensure a steady supply of minerals throughout the plan period.

Area of plan, policy and/or strategy

Spatial development

Attachment/ link and name of plan

IAMP Area Action Plan

available at [https://www.sunderland.gov.uk/article/12757/International-Advanced-Manufacturing-Park-oce21256_IAMP_Area_Action_Plan_A4_Landscape_\(2\)-_final_on_web.pdf](https://www.sunderland.gov.uk/article/12757/International-Advanced-Manufacturing-Park-oce21256_IAMP_Area_Action_Plan_A4_Landscape_(2)-_final_on_web.pdf)

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Partial – covers part of the jurisdiction and adjoining areas, please explain (Covers part of Sunderland and part of South Tyneside)

Year of formal approval of plan

2017

End of year plan

2032

Comment

The International Advanced Manufacturing Park (IAMP) Area Action Plan 2017-2032, which is part of the Local Plan and provides the planning policy context for the development of a 370-acre enterprise zone specialising in the development of automotive and advanced manufacturing sectors, forms the third part of the Local Plan.

Primary aims of IAMP include:

- Building on the area's international reputation in the automotive industries and support Nissan in its expansion and investment in the UK.
- Enabling the North East to continue to achieve a positive balance of trade in goods, thereby strongly supporting the growth and resilience of the UK economy.
- Delivering a key element of the City Deal with Government and to support the NELEP to stimulate local jobs and growth in the local economy.
- Attracting European-scale 'super suppliers', especially linked to automotive industries and encourage investment and expansion by existing businesses.
- Ensuring the North East has sufficient land to meet the demand of growth employment sectors, in the most appropriate locations to attract private sector investment.
- Ensuring links to sub-regional infrastructure, including ports, roads and airports.
- Ensuring a suitable transport network to realise the vision.
- Ensuring access to a skilled workforce to realise the vision.
- Protecting and enhance biodiversity through on- and off-site mitigation.
- Encouraging design and development based on sound sustainability principles.
- Creating a central hub to provide identity and encourage public transport.
- Maximising opportunities to bring in public sector and private sector funding.
- Improving flood alleviation, water quality and habitat connectivity along the River Don.

Area of plan, policy and/or strategy

Other, please specify (Sunderland City Council Low Carbon Action Plan)

Attachment/ link and name of plan

Sunderland City Council Low Carbon Action Plan, available at https://www.seeitdoitsunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000
oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Partial – covers part of the jurisdiction and adjoining areas, please explain (City Council activity only)

Year of formal approval of plan

2020

End of year plan

2030

Comment

The Low Carbon Action Plan has been prepared to align to the Sunderland Low Carbon Framework. It sets out how the Council will reduce its carbon impact and meet the strategic objectives in the city-wide Framework.

This Action Plan sets out the numerous actions across each of the seven strategic priorities, for the Council to help the delivery of its 2030 carbon neutral target, as well as contributing to the citywide 2040 carbon neutral goal. The Action Plan, like the Low Carbon Framework, has seven strategic priorities: Our Behaviour, Our Policies and Operational Practices, An Energy Efficient Built Environment, Renewable Energy Generation and Storage, Low Carbon and Active Transport, A Green Economy and Consumption and Waste. Within each strategic priority, a number of objectives and individual actions are set out and will continue to be brought forward.

There will be opportunities for the ongoing development and implementation of the Council's Low Carbon Action Plan to support delivery of the wider City Plan as well as to support delivery of individual strategies, such as the Community Wealth Building Strategy and other initiatives aligned to the Council's wider objectives as a Co-operative Council.

Reflecting a fully understanding of the City's and Council's emissions and activity to date, the Council refreshed and adopted a more robust version of its Low Carbon Action Plan which was approved by Cabinet in July 2022 and 2030 Shadow Board Partners are also drafting their own Action Plans to align with the citywide Low Carbon Framework

Area of plan, policy and/or strategy

Spatial development

Attachment/ link and name of plan

Riverside Sunderland Masterplan and Supplementary Planning Document

Masterplan - https://www.riversidesunderland.com/sites/default/files/2020-10/sunderland_masterplan_relaunch_RevU_spreads.pdf

Supplementary Planning Document - available at https://www.sunderland.gov.uk/media/22904/Riverside-Sunderland-SPD/pdf/Riverside_Sunderland_SPD.pdf?m=637437352115230000

[sunderland_masterplan_relaunch_RevU_spreads.pdf](#)

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Smaller – covers only part of the jurisdiction, please explain (Covers an area of the Urban Core.)

Year of formal approval of plan

2020

End of year plan

2035

Comment

Riverside Sunderland is a new urban quarter being developed in Sunderland city centre. The Riverside Sunderland Masterplan has the ambition of developing Riverside Sunderland into one of the UK's first carbon-neutral neighbourhoods. Key goals of the Riverside Sunderland low emissions approach are to design for low energy consumption; maximise opportunities for heat recovery; integrate Riverside Sunderland into a city-wide low-carbon heating network; generate energy from renewable sources; reduce car dependency and use modern methods of construction (MMC).

A Supplementary Planning Document was adopted by the Council in December 2020 which provides planning guidance for the delivery of the site.

Regarding climate change mitigation, reducing energy consumption and using clean energy are key aspects of the Riverside Sunderland Masterplan. A range of targets for both domestic and non-domestic buildings are set out for both 2025 and 2030 to reduce operational energy, reduce space heating demand, increase renewable generation on roofs, reduce embodied carbon, and decrease potable water use. For example, the Riverside Sunderland project aims to reduce the operational energy consumption in domestic buildings to 70 kWh/m²/y by 2025, and to 0-35 kWh/m²/y by 2030.

Regarding climate change adaptation, the Riverside Sunderland SPD requires development to incorporate SuDS as integral features to the green infrastructure and street layout, to act as positive features to the development and help to reduce flood risk. Development is also required to ensure that surface water run-off levels are in accordance with council standards. The Riverside Sunderland Masterplan also ensures that tree planting and sustainable urban drainage will promote climate change resilience.

The Riverside Sunderland Masterplan is guided by principles of integrated sustainability and consequently, Riverside Sunderland aims to support a circular economy by using efficient designs, sustainable materials, and nature-based solutions, as well as working with the landscape to implement sustainable urban drainage.

Area of plan, policy and/or strategy

Spatial development

Attachment/ link and name of plan

South Sunderland Growth Area SPD

https://www.sunderland.gov.uk/media/22413/SSGA-SPD-June-2020/pdf/SSGA_SPD_-_June_2020.pdf?m=637279202064570000

[SSGA_SPD_-_June_2020.pdf](#)

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Smaller – covers only part of the jurisdiction, please explain (Covers areas of land in south Sunderland.)

Year of formal approval of plan

2020

End of year plan

2033

Comment

The South Sunderland Growth Area Supplementary Planning Document (SSGA SPD) recognises that Sunderland has an important part to play in tackling climate change and contributing to the national target of carbon neutrality by 2050.

Achievement of many of the central objectives within the SSGA SPD coincide with the successful mitigation and adaptation of climate change in Sunderland. The six core objectives are:

- To create a high quality built environment which makes the most of existing topography, landscape features, water courses, wildlife habitats, site orientation and microclimate.
- To create a new community with distinct architectural and landscape features which give the place a unique sense of character.
- To deliver high quality executive housing and wider housing choices.
- Provide new facilities including a neighbourhood centre, local parades, primary school and open space where the greatest number of new and existing residents can access them easily and safely.
- To create development which integrates with the existing community and is well connected to the surrounding area and facilities by road, footpath, cycle route and public transport link.
- To deliver a sustainable community that cares for the city's environment, makes efficient use of natural resources and mitigates against climate change.

Area of plan, policy and/or strategy

Other, please specify (Neighbourhood Investment)

Attachment/ link and name of plan

Sunderland Neighbourhood Investment Plans

<https://www.sunderland.gov.uk/Neighbourhood-Investment-Plans>
oce22013_WashDelivery_PlansSCC1.pdf
oce22013_Neighbourhood_Delivery_Plans_A4_West.pdf
oce22013_Neighbourhood_Delivery_Plans_A4_North.pdf
oce22013_Neighbourhood_Delivery_Plans_A4_Coalfield_Feb_2022.pdf
oce22013_Neighbourhood_Delivery_Plans_A4_East2.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Smaller – covers only part of the jurisdiction, please explain (Sunderland has five Neighbourhood Investment Plans for the five areas of the city.)

Year of formal approval of plan

2020

End of year plan

2023

Comment

Sunderland's five Neighbourhood Investment Plans, which cover the five areas of the city - North, East and West Sunderland, Coalfields and Washington - aim to incorporate climate resilience through the prioritisation of tree and shrub planting programmes, improvement of drainage systems, reviewing of transport routes, reducing carbon footprint, creating green solutions, implementing traffic calming and investing in active travel infrastructure.

Area of plan, policy and/or strategy

Deforestation, forest degradation and/or forest restoration

Attachment/ link and name of plan

North East Community Forest (Future)
<https://www.newcastle.gov.uk/northeastcommunityforest>
North East Community Forest Bid 26.02 Compressed (2).pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Sunderland, South Tyneside, North Tyneside, County Durham, Newcastle-upon-Tyne, Gateshead)

Year of formal approval of plan

2021

End of year plan

2025

Comment

Sunderland, along with neighbouring Local Authorities Newcastle-upon-Tyne, North Tyneside, South Tyneside, Durham and Gateshead recently formed the North East Community Forest Partnership. Over 4 years, 500ha of trees and woodlands will be created, as well as protecting and enhancing our existing tree stock and woodlands. The North East Community Forest is discussed further in question 9.1.

Area of plan, policy and/or strategy

Green infrastructure

Attachment/ link and name of plan

Sunderland Green Infrastructure Strategy, available at [https://www.sunderland.gov.uk/media/20889/SD-46-Sunderland-Green-Infrastructure-Strategy-2018-/pdf/SD.46_Sunderland_Green_Infrastructure_Strategy_\(2018\).pdf?m=636802959791130000](https://www.sunderland.gov.uk/media/20889/SD-46-Sunderland-Green-Infrastructure-Strategy-2018-/pdf/SD.46_Sunderland_Green_Infrastructure_Strategy_(2018).pdf?m=636802959791130000)

Sunderland Green Infrastructure Delivery and Action Plan, available at https://www.sunderland.gov.uk/media/21396/EX1-017-Sunderland-Green-Infrastructure-Delivery-and-Action-Plan/pdf/EX1.017_Sunderland_Green_Infrastructure_-_Delivery_and_Action_Plan.pdf?m=636918745551330000

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2018

End of year plan

2033

Comment

The Green Infrastructure Strategy was commissioned by Sunderland City Council to inform and support Sunderland's Core Strategy and Development Plan (CSDP) 2015-2033. It builds upon a wealth of work already conducted by the Council, in assessing the quality and quantity of greenspace provision in local neighbourhoods across the city and identifying a set of district and inter- district Green Infrastructure Corridors.

The importance of these Corridors in protecting and enhancing the existing GI assets that provide multiple benefits to people and wildlife across Sunderland is highlighted in this study. They define our settlements, whilst providing a connected landscape within which biodiversity, natural processes and ecosystem services can function. The natural capital we derive from these functions will become increasingly important to support sustainable growth alongside climate change and population expansion.

This study also builds upon the Council's Greenspace Audit and utilises a range of wider socioeconomic and environmental indicators, relevant to the NPPF's objectives, in order to map where there is greatest area-based need for the public benefits that GI brings. The evidence base is then combined in order to highlight where there is greatest potential for economic, social, environmental and multi-functional outcomes from green infrastructure interventions. The resulting maps provide an overview of where enhancements to promote GI could deliver the greatest benefits for wildlife and people.

The study recognises that certain indicators require further refinement and that the mapping outputs must be considered only as an aid to strategic planning. Local

knowledge and conditions; political and community values; ownership, partnerships, access and stewardship are all amongst further factors which must be considered and brought to bear in order to sustainably enhance and connect GI appropriately across the City.

Finally, a set of priorities is defined for GI delivery in Sunderland with a summary of recommended next steps to take the strategy forward. This includes the production of a Delivery and Action Plan, to identify projects, resources and partners, overcome barriers, and deliver the Council's aspirations for green infrastructure on the ground.

Area of plan, policy and/or strategy

Biodiversity

Attachment/ link and name of plan

Biodiversity SPD (link not available yet - future plan)

A link to the scoping report is available at:

https://www.sunderland.gov.uk/media/22474/Biodiversity-SPD-Scoping-Report-February-2020/pdf/Biodiversity_SPD_Scoping_Report_-_February_2020.pdf?m=637305778343070000

Biodiversity_SPD_Scoping_Report_-_February_2020.pdf

Current status of plan

Plan update in progress

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Gateshead, Sunderland, South Tyneside (explained in comment section))

Year of formal approval of plan

2022

End of year plan

Comment

Sunderland City Council is currently working on a joint biodiversity SPD. A scoping report for the biodiversity SPD was consulted on in February 2020. The SPD will use locally relevant information on the distribution and abundance of species and habitats of importance to biodiversity conservation to inform expected standards for the protection, enhancement and restoration of biodiversity. Where possible this will include building in resilience to climate change within measures taken to further these aims. The aim will also be to increase certainty on the standards of information used to demonstrate compliance with biodiversity related planning policies, where this is most appropriately included with the SPD rather than separate planning documents.

The SPD will also be written so as to complement the Local Nature Recovery Strategy being developed jointly by the local authorities for Gateshead, South Tyneside and Sunderland. The document will aim to provide clarity and guidance on discharging the mandatory biodiversity net gain requirement, which is due to come into force from November 2023 through national legislation.

Area of plan, policy and/or strategy

Water security/quality

Attachment/ link and name of plan

Wear Catchment Plans, available at <https://catchmentbasedapproach.org/wp-content/uploads/2022/01/Final-Wear-Catchment-Partnership-Catchment-Management-Plan.pdf>

Final-Wear-Catchment-Partnership-Catchment-Management-Plan.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Covers the Wear Catchment area.)

Year of formal approval of plan

2021

End of year plan

2025

Comment

The Wear Catchment Partnership is one of four Catchment Partnerships within the Northumbria River Basin, and five within the North East area. There are three Local Nature Partnerships which cover the North East area and beyond. Where appropriate, the Wear Catchment Partnership works with these groups and other relevant local and regional partnerships.

The Wear Catchment Management Plans set out the aim to improve the water environment and the activities to be undertaken to work towards this. Plans will develop further as the catchment partnership grows and becomes sustainable. The plan is structured in three sections:

- Business planning – describes how the partnership is managed and how it will be sustainable into the future;
- Catchment overview – presents the Wear Catchment and introduces its subcatchments, and our approach to using data and evidence;
- Action plan – sets out the delivery activities to achieve the objectives. The action plan is the basis of, and underpins, the overall management plan. Each action plan project group will deliver its own communication and engagement and data gathering and monitoring activity as required by that project.

Area of plan, policy and/or strategy

Water security/quality

Attachment/ link and name of plan

Northumbrian Water Resources Management Plan 2021 – 2025, available at

<https://www.nwg.co.uk/responsibility/environment/wrmp/current-wrmp-2015-2020/>

and Northumbria River Basin District River Management Plan, available at [https://www.gov.uk/guidance/northumbria-river-basin-district-river-management-plan-updated-2022#:~:text=The%20Northumbria%20river%20basin%20district%20\(%20RBD%20\)%20river%20basin%20management%20plan,Implementing%20the%20plans.](https://www.gov.uk/guidance/northumbria-river-basin-district-river-management-plan-updated-2022#:~:text=The%20Northumbria%20river%20basin%20district%20(%20RBD%20)%20river%20basin%20management%20plan,Implementing%20the%20plans.)

NW Final Water Resources Management Plan 2019.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Covers Northumberland and Tyne and Wear.)

Year of formal approval of plan

2021

End of year plan

2035

Comment

The Northumbrian Water Resources Management Plan 2021-2025 (WRMP – attached in section 14) and the Northumbria Water Basin Management Plan cover Sunderland and have water security targets. The WRMP aims to reduce leakage by 15% between 2020 and 2025, and a further 10% over each subsequent 5-year period through to 2045. In addition, the WRMP aims to annually reduce per capita water consumption by 0.12l/head/day (0.33 Ml/day) by delivering water efficiency activities. The Northumbria Water Basin Management Plan aims to provide a long-term framework to protect water quality within the river basin district. The plan has numerous objectives in-line with the European Water Framework Directive. The main environmental objectives are to prevent deterioration of surface and groundwater; achieve good status for all water bodies or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status; reverse significant increases in the concentrations of pollutants in groundwater; and reduce discharges, emissions and losses of hazardous substances into surface water.

Area of plan, policy and/or strategy

Sustainable urban mobility

Attachment/ link and name of plan

North East Joint Transport Committee Transport Plan, available at <https://www.transportnortheast.gov.uk/wp-content/uploads/2021/10/AST004-Transport-Plan-A4-North-East-Transport-Plan.pdf>
AD.30_North_East_Transport_Plan_2021-2035.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Durham, Gateshead, South Tyneside, Sunderland, Newcastle upon Tyne, North Tyneside and Northumberland.)

Year of formal approval of plan

2021

End of year plan

2035

Comment

The North East Joint Transport Committee Transport Plan is the first region-wide Transport Plan for the seven local authority areas in the North East, covering two Combined Authorities, brought together by the North East Joint Transport Committee: The North East Combined Authority (comprising Durham, Gateshead, South Tyneside and Sunderland) The North of Tyne Combined Authority (comprising Newcastle upon Tyne, North Tyneside and Northumberland).

The Plan sets out priorities and forms the basis for bids and requests for funding for transport investment in the North East up to 2035.

Delivering this Plan, achieving the vision and objectives will support a shift to a more sustainable and healthier way of life in the North East, through lowered emissions, better air quality and travel choices.

- Easier access to education, skills, and higher value jobs
- Health levels at least equal to other regions in the UK
- Better connections from the North East to national and international destinations
- A transport network with improved environmental credentials including more sustainable journeys, better air quality and reduced carbon output
- A safer and more reliable integrated transport network, which is more intuitive for customers, with a sustainable cost base
- Direct job opportunities in the transport and infrastructure sectors
- Enabling new development and housing sites and improving accessibility to existing communities.

Area of plan, policy and/or strategy

Sustainable urban mobility

Attachment/ link and name of plan

North East Bus Service Improvement Plan (BSIP), available at <https://www.transportnortheast.gov.uk/wp-content/uploads/2022/11/TNE-BSIP-Nov-25-2.pdf>
TNE-BSIP-Nov-25-2.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Durham, Gateshead, South Tyneside, Sunderland, Newcastle upon Tyne, North Tyneside and Northumberland.)

Year of formal approval of plan

2022

End of year plan

2025

Comment

The Bus Service Improvement Plan (BSIP) sets out a wide range of significant proposed improvements to every aspect of bus services that will be delivered through a formal Partnership of bus operators, the NEJTC, Local Authorities and Nexus. This is discussed further in question 9.1.

Area of plan, policy and/or strategy

Sustainable urban mobility

Attachment/ link and name of plan

North East Rail and Metro Strategy

<https://www.transportnortheast.gov.uk/wp-content/uploads/2022/02/NorthEastRailandMetroStrategy.pdf>

North-East-Rail-and-Metro-Summary-Portrait-Update-Dec-22-v2.pdf

Current status of plan

Other, please specify (draft – consultation closed recently)

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Durham, Gateshead, South Tyneside, Sunderland, Newcastle upon Tyne, North Tyneside and Northumberland.)

Year of formal approval of plan

2022

End of year plan

2035

Comment

The North East Rail and Metro Strategy builds on the North East Transport Plan and outlines the future for rail and Metro in the North East region.

To help achieve the North East Transport Plan's commitment for carbon neutral transport, the North East Rail and Metro Strategy commits to:

- increasing the number of people travelling on rail and Metro in preference to the private car,
- increasing the share of goods transported by rail
- introducing new trains, more efficient electric ones on the Metro and electric / battery / hydrogen ones on the local rail and modal shift from road to rail on freight
- improving stations and depots.

Area of plan, policy and/or strategy

Sustainable urban mobility

Attachment/ link and name of plan

Sunderland Local Cycling and Walking Infrastructure Plan (LCWIP),

https://www.sunderland.gov.uk/media/24397/LCWIPPlan/pdf/LCWIP_A4_Final_Version_September_2021_1_.pdf?m=637699028527830000

oce22286_CoS_LCWIP_A4_NEW.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2021

End of year plan

2040

Comment

The Local Cycling and Walking Infrastructure Plan (LCWIP) document, which was adopted by Cabinet in October 2022, explores walking and cycling in Sunderland and sets out a Local Cycling and Walking Infrastructure Plan (LCWIP). It provides a comprehensive framework to guide Sunderland City Council and its partners regarding planned walking and cycling infrastructure over the next ten years. The plan is used to support funding applications to enable delivery and in taking planning and design decisions regarding transport schemes more broadly, including Active Travel which is specially walking and cycling.

The geographical scope of this LCWIP is the area within Sunderland City Council's boundary. The Council is also consulting and considering how Sunderland's network links to those of neighbouring authorities.

The LCWIP supports a local approach to delivering both the Government and City Council's ambitions to create a cycling and walking nation, as outlined in the Department for Transport's Cycling and Walking Strategy (2017) and will guide future cycling and walking developments in line with our shared walking and cycling ambitions.

Area of plan, policy and/or strategy

Sustainable urban mobility

Attachment/ link and name of plan

Sunderland Electric Vehicle Strategy

Weblink not yet available

Current status of plan

Other, please specify (Future)

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2022

End of year plan

2040

Comment

An Electric Vehicle Delivery Plan has been developed as one of the commitments with the Low Carbon Action Plan. This has been informed by a Sunderland EV Study conducted by Jacobs and sets out how the Council will take forward the parts of the LCAP focused on embedding electrification and de-carbonisation into the council's replacement plan for fleet as well as supporting the transition to ultra-low/zero emission vehicles across the city by residents, partner organisations and business.

Specifically, the plan looks at council fleet replacement, grey fleet / business travel, transport policy, planning, infrastructure delivery, stakeholder engagement, public transport and the taxi sector. The intention is to continue to implement the plan overseen by the corporate Task Group and keep actions under review. A feasibility study has been completed to identify appropriate locations for community based EV charging in phases.

Area of plan, policy and/or strategy

Other, please specify (Waste Management)

Attachment/ link and name of plan

South Tyne and Wear Waste Management Partnership Joint Municipal Waste Strategy 2021-2025,
<https://www.sunderland.gov.uk/media/23945/Waste-Management-Strategy-2021-25/pdf/STWWPWasteManagementStrategy202125.pdf?m=637859771360670000>
STWWPWasteManagementStrategy202125.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Larger – covers the whole jurisdiction and adjoining areas, please explain (Sunderland, South Tyneside and Gateshead)

Year of formal approval of plan

2021

End of year plan

2025

Comment

Sunderland, along with the neighbouring authorities of South Tyneside and Gateshead, form the South Tyne and Wear Waste Management Partnership (STWWMP). The main aims of STWWMP are to manage waste more sustainably and reduce the amount of waste sent to landfill in the region. This is ensured through reducing the amount of waste generated, reusing waste, recycling and/or composting waste as far as reasonably practical within economic and environmental constraints, recovering energy from the remaining waste and finally disposing of any residual waste safely. The STWWMP Joint Municipal Waste Strategy 2021-2025 was published to provide a strategic and coordinated approach to achieving these targets and maximise opportunities arising from the waste management sector.

Area of plan, policy and/or strategy

Health and wellbeing

Attachment/ link and name of plan

Sunderland Healthy City Implementation Plan 2020-2030,
https://www.sunderland.gov.uk/media/23331/Sunderland-Healthy-City-Plan-2020-2030/pdf/M0103076_HEALTHY_CITY_PLAN_2021.pdf?m=637584173389400000
M0103076_HEALTHY_CITY_PLAN_2021.pdf

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2020

End of year plan

2030

Comment

This implementation plan supports the delivery of our Healthy City Plan and our Covid-19 Health Inequalities Strategy. The implementation plan will remain a live plan and will continually develop to take into account emerging needs, challenges and system changes.

In delivering the ambitions set out in the Healthy City Plan and Covid-19 Health Inequalities Strategy, we present nine workstreams within this implementation plan:

- Covid-19 health inequalities
- Best start in life
- Young people aged 11-19
- Smoke free Sunderland
- Addressing alcohol harms
- Healthy weight
- Healthy economy
- Mental health and wellbeing
- Ageing well

Area of plan, policy and/or strategy

Other, please specify (Joint Strategic Needs Assessment)

Attachment/ link and name of plan

Joint Strategic Needs Assessment, available at https://www.sunderland.gov.uk/media/28508/Sunderland-JSNA-2022-23-September-Review/pdf/oc22763_Sunderland_JSNA_202-23_Sept_Review_Web_A4.pdf?m=638122435472930000
oc22763_Sunderland_JSNA_202-23_Sept_Review_Web_A4.pdf

Current status of plan

Plan update in progress

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2022

End of year plan

2025

Comment

One of the statutory functions of the Health and Wellbeing Board (HWB) is to prepare a Joint Strategic Needs Assessment (JSNA), working in collaboration with partners and the wider community, to identify the health and wellbeing needs of the local population. It provides an insight into current and future health, wellbeing and daily living needs of local people and informs the commissioning of services and interventions to improve health and wellbeing outcomes and reduce inequalities.

The findings of the JSNA are based on:

- Consideration of the JSNA topic summaries, which identify health, social care and wellbeing indicators, including the results of local Lifestyle Surveys;
- Comparison of our local population against regional and national averages and, in some cases, statistical neighbours which helps us to understand if a particular health issue is significant; and
- A summary of local needs analysis that has been carried out, identification of effective interventions (what works) and any other rationale for action e.g. a national 'must do' or service users', carers' and public views. The Council is currently in the process of reviewing and updating the JSNA.

This overarching JSNA provides a summary of the health needs of Sunderland and highlights relevant issues for the commissioning of services.

Consumption-Based Emissions Planning

(7.3) Does your jurisdiction have a strategy for reducing emissions from consumption of the most relevant goods and services?

	Response	Provide a link and/or attachment to the strategy addressing emissions from consumption of the most relevant goods and services	Highlight any specific action the jurisdiction is implementing to reduce emissions from the consumption of goods and services in this category
Food	Yes, including community action	Sunderland City Council's Low Carbon Action Plan, available at: https://www.seeitdoitsunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/0ce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000	<p>In 2021, the EGS group identified food as a key issue and priority for the city moving forward. Feedback from CDP in 2021 also identified food sustainability as an area to potentially improve on, highlighting a sustainable food partnership in particular as an area to take forward. In parallel, Public Health also identified healthy and sustainable food as a key priority.</p> <p>Work has been undertaken by the Council's school meals service (a service area for all Sunderland schools who buy their school meals service from the Council), who continue to retain the Bronze Food for Life Served Here certification and the Green Kitchen Standard across all primary schools.</p> <p>The Food for Life Served Here Bronze award provides assurance to schools that the food being services is healthy, fresh, tasty, seasonal, sustainably and ethically sourced and traceable in terms of its province.</p> <p>The Green Kitchen Standard, which is a national certification developed by the Soil Association and Carbon Trust recognises caterers that undertake best practice to sustainably manage energy, water and waste. This includes several measures to reduce food waste:</p> <ul style="list-style-type: none"> • Appropriate ordering, storage and stocktaking • Monitoring and measurement of all food waste • Analysis of pupil choices to ensure correct production of food • Meal portions not sold recorded on the Food Production Planner • Customer plate waste collected daily <p>All food waste weighed each day and recorded in Food Production Planners. The total weight of food waste across all sites is calculated every month so that progress towards food waste targets can be monitored</p> <ul style="list-style-type: none"> • Separating of food waste from general waste in each school and placed in specific bins for collection and recycling • Analysis of food waste at individual sites helps to inform the menu development process <p>The Council is also supporting the city-wide Food and Nutrition Charter mark, as an element of the Sunderland Healthy Schools Award (https://www.togetherforchildren.org.uk/article/21243/Sunderland-Healthy-Schools-Award). Any Sunderland education setting can apply to the Bronze level, which was rolled out in 2021. There is significant focus on environmental sustainability including plant-based and planet-friendly diets, waste minimisation and seasonal eating among other initiatives. There are now 5 educational settings accredited at bronze level across early years, primary and secondary. The silver level will be developed for the 2023/24 academic year, with the gold level to follow in 2024/25.</p> <p>The Council's school meals service is also working in partnership with Public Health to pilot the national Belly Bugs campaign in primary schools. Belly Bugs is based on the latest scientific research into healthy gut microbes and emphasises a more plant-based diet.</p> <p>Finally, with regard to school meals, 8 primary schools have now implemented to Evolve pre-order system and meat-free Mondays have also been introduced.</p> <p>Through the Connect Communities initiative which supports community engagement and especially and vulnerable people, Sunderland Partnership operated the Common Ground Project in 2021. This brought together people through gardening and healthy eating, and reduced food miles.</p> <p>More recently, the Sunderland Good Food Partnership has successfully applied to the Sustainable Food Places Network and in March 2023 received £5000 funding from Sustain's 'Food for the Planet' campaign, which will go towards developing a 'Sustainable Food Vision' for the city. This work is being led by the Sunderland Food Partnership coordinator and began with a 'Sustainable Food Summit' for residents in April 2023.</p> <p>The Council's Action Plan has recently been updated and include several actions which can help to further improve the sustainability of Sunderland's food sector in forthcoming years. This includes raising awareness of the Too Good to Go / Olio apps, which help to reduce food waste.</p> <p>Sunderland also is currently working to bring together partners from all relevant sectors across the city to: agree priorities for improving the food system; implement a food strategy and action plan; and support a long-term approach for reducing food insecurity. These plans consider numerous priorities relating to health inequalities, poverty and hunger, and building a more prosperous, secure and diverse local food economy, as well as helping to tackle critical sustainability issues such as waste, supporting sustainable diets, and the climate and nature emergency.</p> <p>The Council's Low Carbon Action Plan was updated in July 2022 and include several actions which can help to further improve the sustainability of Sunderland's food sector. This includes raising awareness of the Too Good to Go / Olio apps, which help to reduce food waste. Some action has already been taken in Sunderland to reduce emissions from and increase the sustainability of the food sector emissions for the city.</p>

	Response	Provide a link and/or attachment to the strategy addressing emissions from consumption of the most relevant goods and services	Highlight any specific action the jurisdiction is implementing to reduce emissions from the consumption of goods and services in this category
Construction and demolition	Yes, for jurisdiction action only	<p>Sunderland City Council's Low Carbon Action Plan, available at: https://www.seeitdoitsunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oc222135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000</p> <p>Sunderland Core Strategy & Development Plan (CSDP), available at: https://www.sunderland.gov.uk/media/22171/Core-Strategy-and-Development-Plan-2015-2033/pdf/CSDP_2015-2033.pdf?m=637159725864470000</p> <p>oc222135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf</p> <p>CSDP_2015-2033.pdf</p>	<p>Sunderland has a Sustainable Design and Construction Policy (BH2) as part its CSDP for the city. This ensures that sustainable construction is integral to development and within this, also seeks to reduce emissions from goods and services within the construction sector. This includes a requirement for major development to:</p> <ol style="list-style-type: none"> 1. Maximise energy efficiency and integrate renewable / low carbon energy. 2. Reduce construction waste and promote recycling. 3. Conserve water resources and minimise flood risk. 4. Provide details of the type of materials to be used at the appropriate stage of development. 5. Provide flexibility and adaptability, where appropriate, allowing future modification of use or layout, facilitating future refurbishment and retrofitting. 6. Incorporate measures which enhance the biodiversity value of development, such as green roofs. 7. Include a sustainability statement setting out how the development incorporates sustainable resource management and high environmental standards. 8. Maintain an appropriate buffer between sensitive development and existing wastewater treatment works to ensure amenity and operational continuity, in accordance with Government Code of Practice guidance. <p>The Council's Low Carbon Action Plan has been revised and includes several actions which can help to improve the sustainability of Sunderland's construction sector more widely in the future. This includes objectives to reduce the embedded carbon and increase the energy efficiency of new homes built in the city; maximise the carbon neutral status and energy efficiency of new homes directly delivered by Siglion and the Council in the city; embed carbon reduction into new-build Council / Siglion assets, e.g., City Hall, Culture House, multi-story carparks and schools.</p> <p>Riverside Sunderland is regenerating vacant, derelict and underutilised industrial land to deliver a new residential community, a thriving business district and a focal point for civic, commercial and community life within a highly sustainable location. The Riverside Sunderland SPD, developed in 2020, links closely to the Low Carbon Framework. The SPD guides development on Riverside to achieve carbon neutrality and climate change resilience by: creating energy-efficient offices and public buildings; delivering energy-efficient homes built using modern methods of construction (MMC); encouraging sustainable travel; promoting renewable energy and energy storage; introducing green roofs and green walls; and implementing sustainable urban drainage solutions.</p> <p>Planning approvals for developments within Riverside Sunderland have addressed the SPD requirements and incorporated low carbon solutions, for example a multi-storey car park featuring green walls. Planning permission has also been granted for 132 residential units (which are now under construction) with cafes, retail and a community allotment on the Vaux site and a Future Living Expo will be held across 2024/25 to showcase the low carbon credentials of the site.</p> <p>Vaux Housing will be a sustainable new residential community delivering exemplar carbon reduction, renewable energy, SUDS and biodiversity standards. A fabric first approach to materials and components will ensure high natural lighting, ventilation, insulation, and airtightness reducing energy use. A smart energy network comprising photovoltaics, air source heat pumps, battery storage will maximise energy from renewable resources and ensure distribution and consumption is carefully coordinated with supply and demand to minimise waste. Materials and components will be locally sourced and selected based on their carbon performance in manufacture, construction and operation, and the ability for future recycling and re-use. The development will prioritise sustainable transport to maximise active travel and air quality standards. The development is targeting several accreditations including Future Homes Standard 2025, Passivhaus for one of the residential blocks, RIBA 2025 Embodied Carbon target, Home Quality Mark 4 Star rating and Building Nature 'Excellent' standard.</p> <p>Riverside Sunderland will be a demonstrator site for research and innovation work being led by Sunderland College and Northumbria University in the fields of MMC and advanced manufacturing. Whilst there are many pilot projects using MMC across the region and the wider UK, there are limited examples of it being undertaken at scale. Riverside Sunderland provides a unique opportunity to deliver MMC at scale; there are few opportunities to deliver 1,000 units elsewhere in the UK, and none known to be within city centre environments. Riverside Sunderland therefore also supports growth of the regional supply chain in the MMC sector. In addition, the scheme will provide education and training opportunities through the proposed Housing Innovation Construction Skills Academy (HICSA), linking to Research & Development and ensuring the skills of the region meet the future needs of industry.</p>
Transportation	Yes, for jurisdiction action only	<p>North East Transport Plan 2021-2035, available at https://www.sunderland.gov.uk/media/22848/AD-30-North-East-Transport-Plan-2021-2035/pdf/AD.30_North_East_Transport_Plan_2021-2035.pdf?m=637431302877470000</p> <p>AD.30_North_East_Transport_Plan_2021-2035.pdf</p>	<p>Sunderland, along with 6 other local authorities and 2 combined authorities, make up the North East Joint Transport Committee (NEJTC). NEJTC has developed the North East Transport Plan 2021-2035, setting out the transport priorities for our region up to 2035. Delivering this plan will support a shift towards sustainability through lowered emissions, better air quality and travel choices. One of the main objectives of the North East Transport Plan is to make transport in the North East carbon-neutral by 2035. Significant action is required to move the North East away from the internal combustion engine private car up the transport hierarchy to more sustainable modes.</p> <p>Sunderland was an early adopter of infrastructure to support use of electric vehicles. As part of the North East Plugged-In Places programme (2010-2012), charging stations were introduced across the city.</p> <p>Further EV infrastructure is being rolled out across Sunderland, including new facilities in town and city centres, at municipal car parks and at key destinations. In Sunderland as at April 2022 967 charge points were installed between 2014-2022 through the Electric Vehicle Homecharge Scheme and 123 sockets were installed through the Workplace Charging Scheme. In 2019 it was also announced that Sunderland had the highest number of EV charging points per vehicle licence holder in the whole of the UK (1 for every 1460 drivers). The city also boasts the country's first rapid charging electric vehicle station which offers four 50 kW fast chargers and two 175kW fast chargers that are enabled for 350 kW charging (the fastest available nationally). The Council has recently installed further rapid hubs and are progressing a pilot on-street charge-point scheme.</p> <p>Encouraging greater use of low emission vehicles also reflects Sunderland's leading role as part of the UK's low carbon economy. Sunderland-based advanced manufacturing businesses are playing a key role in the decarbonisation of transport.</p> <p>Sunderland has also worked with E-Scooter providers Neuron and Zwings as well as the Department for Transport to trial E-Scooters in the city. This is covered in more detail in section 9.1. The Council is also implementing a new one-stop 'mobility hub' in the city, encouraging use of sustainable transport.</p> <p>This has started with provision of 10 EVs to support Sunderland City Council and Together for Children and will be rolled out to other Riverside Sunderland occupiers and residents in time and will be enhanced with wider services.</p> <p>Sunderland has ambitions to increase walking and cycling mode share in the city, and consequently, has developed a Local Cycling and Walking Infrastructure Plan (LCWIP) for the city. In addition, through the Department for Transport's Active Travel Fund, Sunderland has been awarded just over £1 million to upgrade the National Cycle Network along the coast of Roker. It is hoped this development will later be rolled out further into the city. Furthermore, development is underway for a new pedestrian and cycle bridge at Riverside Sunderland, connecting the city centre to the northern side of the city. This will encourage active transport.</p> <p>All businesses and developers in the city are required to have a sustainable travel plan linked to planning applications.</p>

	Response	Provide a link and/or attachment to the strategy addressing emissions from consumption of the most relevant goods and services	Highlight any specific action the jurisdiction is implementing to reduce emissions from the consumption of goods and services in this category
Clothing and textiles	No strategy that addresses consumption-based emissions from this sector	<Not Applicable>	Sunderland has taken some steps to manage clothing and textiles waste sustainably. This includes the establishment of textile banks at the Pallion Household Waste Recycling Centre (further discussed in question 9.1) to encourage recycling of clothing Several clothes swap events have also been held at City Hall, hosted by the Council and Knightfrank.
Household appliances and electronics	Yes, for jurisdiction action only	South Tyne and Wear Waste Management Partnership Joint Municipal Waste Strategy, available at https://www.sunderland.gov.uk/media/23945/WasteManagement-Strategy-2021-25/pdf/STWWPWasteManagementStrategy202125.pdf?m=637859771360670000 STWWPWasteManagementStrategy202125.pdf	Sunderland has implemented various initiatives to effectively manage electronic and electrical waste (WEEE). This includes conducting trials for doorstep collections and holding amnesty events to encourage people to recycle their household electronic equipment. All white goods can also be collected from people's homes and stored and disposed of separately. The Pallion Household Waste & Recycling Centre (further discussed in question 9.1) also collects microwaves, TVs and other household appliances.
Aviation	Yes, including community action	An annual report for the International Strategy is attached. R- Annual Report 20210621.docx Annex A - 2020-21 Annual Report 20210621.pdf	Through its commitment to decarbonise emission from business travel, Sunderland City Council is currently revising its Foreign Travel Policy to embed emissions reduction into foreign travel.
Waste management	Yes, including community action	South Tyne and Wear Waste Management Partnership Joint Municipal Waste Strategy, available at https://www.sunderland.gov.uk/media/23945/Waste-Management-Strategy-2021-25/pdf/STWWPWasteManagementStrategy202125.pdf?m=637859771360670000 STWWPWasteManagementStrategy202125.pdf	Sunderland's Low Carbon Framework and the City Council's Low Carbon Action Plan aim to reduce consumption and waste including food waste – saving residents and businesses money and reducing emissions from the waste management sector. Strategic Priority 7 (Consumption and Waste) aims to reduce the volume of all consumption and waste, changing what we consume and how it is produced, continuing to avoid the disposal of waste by landfill and increasing opportunities to reuse materials and recycle waste wherever possible. Moving the city up the waste hierarchy will reduce carbon emissions from the waste sector. To date, there have been several key actions which have helped to reduce emissions from the waste management sector. These include the opening of a new Household Waste and Recycling Centre with reuse facility in Pallion and the trial of an electric refuse collection vehicle. As of April 2023, 9 tonnes of waste had been diverted from EfW via the reuse shop, equating to an estimated 191.52kgCO ₂ e..In 2022, the electric refuse collection vehicle collected 3,925 tonnes of waste, clocked 6,047 miles and completed 203,243 bin lifts. The Council's Low Carbon Action Plan has been revised and includes several actions to decarbonise the waste sector in Sunderland in forthcoming years. The City Council will ensure the implementation of its Zero Single Use Plastics commitment, developing and promoting initiatives to minimise plastic waste. The Council launched Refill Sunderland in 2022 to reduce single use plastic waste in the city. Refill is an award-winning behaviour change campaign led by Not-for-Profit organisation 'City to Sea' to help people live with less waste by providing a platform to connect them and their communities to places they can eat, drink and shop without single use plastic packaging. Worldwide over 350,000 people have downloaded the app and the Sunderland scheme will support businesses and consumers locally to transition towards reuse systems and tackle the global issue of plastic pollution. 112 Refill stations were already registered within the city at launch and Refill Sunderland will provide a platform for new stations to register and will help promote them. The Council are also seeking to undertake a feasibility study for the anaerobic digestion from food waste in partnership with other NE local authorities. Sunderland, and 10 other North East Councils, are signed up to undertake a feasibility study, supported by DEFRA for the development of a food waste treatment facility / facilities within North East England. This is being led by officers from the STWWMP. Post 2023, the Environmental Bill / Waste & Resources Strategy commits Local Authorities in England to the introduction of weekly food waste collections which may be introduced on a phased basis. The Council are also trialling smart bins, in partnership with BAI Communications. The bins contain a solar-powered ram which compacts waste, enabling each bin to store up to five times more waste inside. Furthermore, the bins contain sensors which report the quantity of waste inside them. More information regarding the smart bin trial can be found in section 9.1. Finally, Sunderland is aiming to increase the level of composting of garden waste within the city.
Other	Yes, for jurisdiction action only	Annual Carbon Data Report, available at: https://www.mysunderland.co.uk/media/28480/Carbon-Emissions-Report-21-22/pdf/Carbon_Emissions_Report_21-22_-_Final.pdf?m=638046389614100000 Carbon Emissions Report 21-22 - Final.pdf	Sunderland currently does not have a citywide consumption-based emissions inventory, although this is something which may be considered in the future. Sunderland City Council include Purchased Goods and Services in its own scope 3 carbon footprint using Environmentally Extended Input-Output data (EEIO). It was estimated that purchased goods and services were the main contributor to the Council's overall carbon footprint.

Sustainable Public Procurement

(7.4) Does your jurisdiction have a strategy or standard for reducing emissions from the jurisdiction's procurement and purchase of goods and services?

	Response	Provide a link and/or attachment to the strategy or standards addressing emissions from the jurisdiction's procurement	Highlight any specific action(s) the jurisdiction is implementing to reduce emissions from its own consumption
Response	Yes	Sunderland Low Carbon Action Plan, available at https://www.mysunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000 oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf	<p>The 'Our Policies and Operational Practices' strategic priority within Sunderland City Council's Low Carbon Action Plan aims to adapt its policies and operational practices to embrace and support carbon initiatives. This includes an objective to embed carbon reduction into procurement opportunities from pre-procurement to contract management and monitoring. Sunderland is supporting the development of a North East regional Environmental, Social, Governance (ESG) procurement model led by North East Procurement Organisation (NEPO) which considers carbon reduction. The Council is working in conjunction with NEPO as lead pilot local authority seeking to develop longer term proposals on how to utilise and embed the ESG model into the newly developed procurement portal system, Open, which the Council will be going live with by Winter 2023. Finally, the Council is working together to share knowledge and understanding with Low Carbon goals and Corporate Procurement processes to establish a system to identify and assess appropriate low carbon contract obligations as well as desirable requirements from suppliers.</p> <p>It is important to engage with suppliers at an early stage when embedding decarbonisation into purchased goods and services. Because of this, Sunderland City Council aim to follow a 5-step engagement framework from procurement to catalyse efficient supply chain decarbonisation:</p> <ol style="list-style-type: none"> 1. Listen to supplier views regarding sustainability via a questionnaire 2. Provide a support package to suppliers – including information and webinars 3. Ask suppliers to measure their carbon footprint and report results 4. Require suppliers to publish a net zero target, in line with the Council's 2030 target 5. Encourage suppliers to publish a carbon reduction plan to reduce their carbon footprints, in line with the Council's 2030 target

Finance

(7.5) Describe any planned climate-related projects within your jurisdiction for which you hope to attract financing.

Project area

Buildings

Project title

Social Housing Decarbonisation Fund Wave 3

Stage of project development

Implementation

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Grants

Project description and attach project proposal

Through the Social Housing Decarbonisation Fund (SHDF), Sunderland City Council is working with one of the largest housing providers in the city to decarbonise domestic energy in social homes. In partnership with Gentoo (Sunderland's main housing provider), Sunderland City Council led a successful £1.2m bid towards a £2.7m project as part of SHDF Wave 1, to improve the EPC rating of 400 social homes. This project was recently completed.

Sunderland worked with Residential Social Landlords (RSLs) in the city to seek to develop proposals when SHDF Wave 2 launched in August 2022 which had a total UK funding pot worth £800m, but although a bid was submitted, this was unsuccessful. Sunderland will look to promote SHDF Wave 3 among RSLs when details of the competition are announced.

The Council has recently used Parity software that draws on EPC data, which currently indicates that approximately half a billion pounds would be required to transition social properties to net zero in Sunderland. It is clear that significant investment will be required from a variety of sources if this is to be achieved.

Total cost of project (in currency specified in 0.1)

552000000

Total investment cost needed if relevant (in currency specified in 0.1)

552000000

Project area

Transport

Project title

Local Electric Vehicle Infrastructure

Stage of project development

Project feasibility

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Please select

Project description and attach project proposal

The £10m LEVI pilot fund is intended to encourage large scale, ambitious and commercially sustainable projects that leverage significant private sector investment to support the rollout of electric vehicle charging infrastructure. The proposed project, if funding is secured, will deliver up to 219 residential EV chargepoints across the city.

Total cost of project (in currency specified in 0.1)

822612.7

Total investment cost needed if relevant (in currency specified in 0.1)

493567.62

Project area

Buildings

Project title

Public Sector Decarbonisation Scheme - Wave 3

Stage of project development

Implementation

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Grants

Project description and attach project proposal

The Public Sector Decarbonisation Scheme (PSDS), delivered by Salix Finance, funds capital energy efficiency and heat decarbonisation projects within public sector non-domestic buildings including central government departments and arm's length bodies in England. After a successful £2.2m bid to decarbonise 8 municipal buildings through PSDS Wave 1, SCC submitted a targeted bid to PSDS Wave 3 seeking £792,500 grant support towards £873,473 total project costs to replace old gas boilers and install low carbon heating systems and fabric measures at 2 community sites in the city – Thorney Close Action and Enterprise Centre, and the Rainbow Family Centre in Washington. Clarifications and technical query submission have been submitted. The outcome of the bid is expected soon.

Total cost of project (in currency specified in 0.1)

792500

Total investment cost needed if relevant (in currency specified in 0.1)

873500

Project area

Transport

Project title

Sunderland Cycling Infrastructure Development

Stage of project development

Project structuring

Status of financing

Project not funded and seeking full funding

Identified financing model

Grants

Project description and attach project proposal

The Levelling Up Fund invests in infrastructure projects that improve everyday life across the UK. The £4.8bn fund will support town centre and high street regeneration, local transport projects, and cultural and heritage assets.

Sunderland is drafting a Cycling Infrastructure Scheme for the delivery of a new pedestrian / cycle bridge across the river Wear in the Sheepfolds area, cycling infrastructure improvements in the city-centre, and the delivery of 2 new strategic cycle routes to connect the north and the south areas of Sunderland to the new bridge.

Total cost of project (in currency specified in 0.1)

59573144

Total investment cost needed if relevant (in currency specified in 0.1)

26800000

Project area

Transport

Project title

City Region Sustainable Transport Fund (Department for Transport)

Stage of project development

Scoping

Status of financing

Project not funded and seeking full funding

Identified financing model

Grants

Project description and attach project proposal

The 4.2 billion North East Devolution Deal brings together a number of new and existing funding streams. In particular the City Region Sustainable Transport Settlement (CRSTS), monies available via the regional Bus Service Improvement Plan (BSIP), the Low Emission Vehicle Infrastructure (LEVI) Fund and future rounds of the Active Travel Fund (ATF) offer real opportunity for Sunderland City Council to reduce carbon emissions and encourage modal shift via transport interventions.

In the period 2023/24 to 2026/27 the council will work with regional partners to develop and deliver improvements in local rail and bus services, new cycle lanes and active travel schemes, measures to tackle congestion and air pollution, and to introduce more Electric Vehicle Charging infrastructure.

Total cost of project (in currency specified in 0.1)**Total investment cost needed if relevant (in currency specified in 0.1)**

Project area

Renewable energy

Project title

District Heating Opportunities

Stage of project development

Project feasibility

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Grants

Project description and attach project proposal

Sunderland City Council is looking to utilise mine water heating opportunities for the city centre and Riverside Sunderland through the Heat Networks Investment Project (HNIP) and the Green Heat Network Fund (GHNF). More detail is provided in question 9.1.

Total cost of project (in currency specified in 0.1)

41000000

Total investment cost needed if relevant (in currency specified in 0.1)

41000000

Project area

Transport

Project title

Active Travel Fund

Stage of project development

Project structuring

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Grants

Project description and attach project proposal

In June 2021, DfT invited local authorities to bid for capital funding for 2021/22 financial year, to support delivery of ambitious new cycling and walking infrastructure schemes. The funding is part of the Government's £2 billion commitment set out in "Gear Change" to deliver a step change in the provision of high-quality schemes that deliver better streets for everyone.

The North East Joint Transport Committee was awarded £2,262,000 under Round 1. Sunderland schemes were awarded £221,000 for temporary measures that could be delivered within 3 months.

NEJTC round 2 allocation was oversubscribed with only 1 Sunderland scheme approved for a £1.125m grant for the A183 Whitburn Road project (Tram Shelter to Roker Café) which was matched with a contribution of £0.125m from the Council's Local Transport Plan (LTP) grant allocation for 2021/22. Works will be completed by June 2023.

Sunderland secured funding for two schemes through round 3. This includes the Pallion New Road / European Way Cycle Route and the A1018 St Peters / Dame Dorothy Street Cycleway (both including a 10% match from the Council's Local Transport Plan). These schemes were initially costed at £1,980,000 and £1,650,000 respectively, although the cost of both schemes have also increased. Both schemes are to be delivered by March 2024.

Through Active Travel Fund Round 4, the Council applied for £2.1m funding for a cycle lane on Ryhope Road, although unfortunately this was unsuccessful. However, the Council will continue to target the Active Travel Fund in the future, to support delivery of the Local Cycling and Walking Infrastructure Plan (LCWIP).

Total cost of project (in currency specified in 0.1)

2100000

Total investment cost needed if relevant (in currency specified in 0.1)

2100000

Project area

Buildings

Project title

Public Sector Decarbonisation Scheme

Stage of project development

Implementation

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Grants

Project description and attach project proposal

The Public Sector Decarbonisation Scheme (PSDS) funds capital energy efficiency and heat decarbonisation projects within public sector non-domestic buildings including central government departments and arm's length bodies in England. PSDS supports the aim of reducing emissions from public sector buildings by 75% by 2037, as set out in the 2021 Net Zero and Heat and Buildings strategies.

After a successful £2.2m bid to decarbonise 8 municipal buildings through PSDS Wave 1, Sunderland City Council submitted a targeted bid to PSDS Wave 3a seeking £792,500 grant support towards £873,473 total project costs to replace old gas boilers and install low carbon heating systems and fabric measures at 2 community sites in the city – Thorney Close Action and Enterprise Centre, and the Rainbow Family Centre in Washington. Unfortunately, this bid was unsuccessful.

Phase 3c, the next application window, is expected to open to applications in autumn 2023 and a date for phase 4 is to be confirmed in the coming months. Future PSDS applications will be supported through ongoing work delivered by the Strategic Energy Advisor (Jacobs) and Nomad Energy Solutions Ltd (further discussed in questions 3.1

and 9.1 respectively).

The Council has procured two pieces of work which will support development of its next PSDS applications – a Strategic Energy Advisor project (through which Jacobs were appointed) and a multi-year project as part of the city's Smart City Joint Venture bringing together BAI Communications and Nomad Energy Solutions.

Total cost of project (in currency specified in 0.1)

Total investment cost needed if relevant (in currency specified in 0.1)

Project area

Please select

Project title

<Not Applicable>

Stage of project development

<Not Applicable>

Status of financing

<Not Applicable>

Identified financing model

<Not Applicable>

Project description and attach project proposal

<Not Applicable>

Total cost of project (in currency specified in 0.1)

<Not Applicable>

Total investment cost needed if relevant (in currency specified in 0.1)

<Not Applicable>

Project area

Nature-Based Solutions

Project title

Local Authority Treescapes Fund 3 (LATF3)

Stage of project development

Scoping

Status of financing

Project not funded and seeking full funding

Identified financing model

Grants

Project description and attach project proposal

The Local Authority Treescapes Fund (LATF), which launched in 2021, is the key government offer for local authorities (LAs) to restore tree cover in non-woodland areas which may have been impacted by issues such as disease, habitat degradation or ageing tree stock. The fund is focused on planting and natural colonisation of trees in areas outside of woodlands, including parklands, riparian zones, urban areas, beside roads and footpaths as well as trees in hedgerows and field boundaries (not hedgerows themselves). LATF-funded trees can be small or large, and in urban or rural settings. Planting of standards in urban or peri urban areas must be direct replacements of trees lost to threats such as pests and diseases.

Local authorities are encouraged to work with schools, other organisations, grass root organisations, community groups, NGOs and private individuals to deliver tree planting. Sunderland is considering a joint bid with other local authorities as part of the North East Community Forest.

Sunderland has already had tree planting success through the Local Authority Treescapes Fund (LATF). In 2021/22 Sunderland secured £50,000 through the Local Authority Treescapes Fund Round 1 (LATF1) and delivered 61 standard trees and 783 whips.

In 2022/23 Sunderland secured £70,000 through the Local Authority Treescapes Fund Round 2 (LATF2) and delivered 73 standard trees.

Sunderland, together with 3 other local authority NECF partners, applied for LATF3 in June 2023, to deliver 8 'tiny forest' projects (two in each local authority area). Approximately £30,000 funding is being bid for per site, with Sunderland Council providing £5,000 matched funding in total.

Total cost of project (in currency specified in 0.1)

300000

Total investment cost needed if relevant (in currency specified in 0.1)

300000

Project area

Nature-Based Solutions

Project title

Woodland Creation Accelerator Fund (WCAF)

Stage of project development

Scoping

Status of financing

Project not funded and seeking full funding

Identified financing model

Grants

Project description and attach project proposal

The Woodland Creation Accelerator Fund (WCAF) is a fund with a total value of £9,800,000. It is designed to provide financial support to increase the capacity of specialist skills within local authorities enabling them in turn to accelerate the delivery of tree planting and woodland creation commitments. The goal of the fund is to enable more trees planted particularly in winter seasons 2023/24 and 2024/25.

The North East Community Forest Partnership submitted a successful bid in 2022 to allocate to the provision of 2 x Woodland Officers and 2 x part time Woodland Officer posts. The Woodland Officers will join the existing North East Community Forest team and are working with all five authorities (Newcastle, Durham, North and South Tyneside, and Sunderland), to provide assistance in achieving a planting target of 500ha by 2025. These new posts are employed by Newcastle City Council and are subject to the NECF Partnership Agreement.

Details of future rounds are to be confirmed later in 2023. It is currently unknown whether Sunderland will apply either individually or as part of the NE Community Forest for this funding.

Total cost of project (in currency specified in 0.1)

Total investment cost needed if relevant (in currency specified in 0.1)

Project area

Nature-Based Solutions

Project title

Climate Action Fund (CAF)

Stage of project development

Scoping

Status of financing

Project not funded and seeking full funding

Identified financing model

Public finance - national government

Project description and attach project proposal

National Lottery Community Fund is delivering this funding as part of its wider Climate Action programme. Grants are available to local not-for-profit groups and partnerships for community-driven projects which address climate change while tackling energy challenges across the UK.

For the current 2023 call, there is an £8 million funding pot. Grants of up to £1.5 million over two to five years are available, with most projects expected to be between £300,000 and £500,000. Development grants of £50,000 to £150,000 over 12 to 18 months are also available. The programme will fund both new partnerships, and ones that have already been set up.

The Council's Low Carbon Team is reviewing this opportunity with partners. The programme is open for applications until December 2023.

Total cost of project (in currency specified in 0.1)

1500000

Total investment cost needed if relevant (in currency specified in 0.1)

1500000

Project area

Energy efficiency (including public lighting)

Project title

Boiler Upgrade Scheme (BUS)

Stage of project development

Implementation

Status of financing

Project partially funded and seeking additional funding

Identified financing model

Public finance - national government

Project description and attach project proposal

The Boiler Upgrade Scheme (BUS) launched in May 2022 and will run until 2025. BUS requires the contractor to work directly with the private owner-occupier or landlord to access BUS funding.

Total cost of project (in currency specified in 0.1)

Total investment cost needed if relevant (in currency specified in 0.1)

Project area

Transport

Project title

On-street Residential Charge Point Scheme (ORCS) Phase 2

Stage of project development

Project feasibility

Status of financing

Project not funded and seeking full funding

Identified financing model

Public finance - national government

Project description and attach project proposal

ORCS provides electric vehicle public charge points for residents who don't have access to private parking.

Through phase 1 of ORCS, the Council secured £69,300 grant funding in January 2021 to install electric vehicle charging infrastructure. The grant enabled the Council to install 10 electric vehicle charging points for use by residents where off-street parking was unavailable. Works were completed across 4 locations in the city in March 2023.

Sunderland City Council recently submitted a bid for 120 outlets across 29 locations.

Total cost of project (in currency specified in 0.1)

Total investment cost needed if relevant (in currency specified in 0.1)

(7.6) Report the factors that support climate-related investment and financial planning in your jurisdiction.

Response

Mechanisms used by jurisdiction to access finance for climate-related projects

- Jurisdiction's own funds and budgetary means
- Jurisdiction borrows from national government
- Jurisdiction accesses finance from national government funds, grants etc.
- Jurisdiction accesses finance from public-private partnerships
- Jurisdiction partners with other jurisdictions to access finance

Comment

Sunderland City Council has tax raising powers and in addition it receives grant funding from national government which it utilises to fund low carbon activity. For significant capital investment it can borrow from the Public Works Loans Board (an agency of national government). The Council also bids for and secures external funding from a variety of other organisations (including national government) to support its work to deliver its low carbon agenda. This may also involve working with other neighbouring councils to access finance and funding and secure economies of scale.

Credit rating of jurisdiction

Jurisdiction does not have an international or domestic credit rating

Comment

N/A

Decarbonising jurisdiction's investments

- Jurisdiction has taken steps to decarbonise the investments held by the jurisdiction retirement funds by investing in the low-carbon economy
- Jurisdiction has taken steps to decarbonise municipal investments

Comment

The council participates in the Tyne and Wear Pension Fund (TWPF) and has a single representative (18 in total) on the TWPF Committee. The Committee has undertaken action on behalf of the TWPF including:

- Setting a 2050 net zero target, including a 50 – 60% decarbonisation target by 2030;
- agreeing a new Climate Change Policy;
- investing 15% of the long-term allocation of quoted equities to the Legal and General Future World series of funds
- committing 3% of the Fund to the Border to Coast Climate Opportunities fund
- committing to publish a TCFD Report
- being a long-standing member of the Local Authority Pension Fund Forum.

TWPF is considering climate change as a key factor in the ongoing review of its Investment Strategy to support decarbonisation. Through its committee representation, the Council supports these activities to ensure targets are achieved.

Through the 2022 Investment Strategy Review, the Fund commissioned its Investment Consultant to analyse how alternative climate scenarios could impact the Fund. The results show that the actions taken by the Fund to address these risks are appropriate whilst recognising that further work and ongoing monitoring is still required.

The approved changes to the investment strategy in 2022 support decarbonisation through increased allocations to lower carbon asset classes. This includes a £465 million commitment to the Border to Coast climate opportunities fund and substantial investments in renewable energy globally. The TCFD Report is available at https://www.twpf.info/media/4940/Task-Force-for-Climate-Related-Financial-Disclosure-TCFD-Report/pdf/Task_Force_for_Climate_Related_Financial_Disclosure_TCFD_Report_2021-22.pdf?m=638066348575170000.

The Fund is reviewing its factor based global equity portfolio to identify lower carbon alternatives which will build on the 6% allocation of total assets to the Legal & General Future World series of Funds. These funds are designed to have lower carbon exposures than the markets they invest in and benefit from the Legal & General 'Climate Impact Pledge'. This is a commitment to engage with the world's largest companies to address climate change. This causes positive change in the companies in which The Pension Fund invest. If the required change is not delivered by these companies, this can lead to divestment. 13 companies have currently been divested from. More information can be found at: <https://www.twpf.info/article/10105/Climate-change-policy>.

Actions

8. Adaptation Actions

(8.1) Describe the outcomes of the most significant adaptation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phase.

Action (selections mandatory)^

Educational/Informational actions	Flood mapping
-----------------------------------	---------------

Climate hazard(s) that action addresses^

- River flooding
- Coastal flooding (incl. sea level rise)
- Storm
- Heavy precipitation

Other, please specify (Surface water flooding)

Action description and web link to further information[^]

The SFRA uses up-to-date flood risk information together with the most current flood risk and planning policy available from the National Planning Policy Framework and Flood Risk and Coastal Change Practice Planning Guidance.

The SFRA focusses on collecting readily available flood risk information from stakeholders, the aim being to help identify the number and spatial distribution of flood risk sources present throughout the Sunderland City Council's Local Plan area to inform the application of the Sequential Test. The Assessment forms part of the evidence base for the Council's Local Plan and has informed planning policy content.

The SFRA was first implemented in 2011, and is updated regularly, with the most recent update being in 2020, and is subject to public consultation as part of this process.

https://sunderland.gov.uk/media/22850/AD-25-Strategic-Flood-Risk-Assessment-Level-1/pdf/AD.25_Strategic_Flood_Risk_Assessment_Level_1.pdf?m=637431304023570000

Sectors adaptation action applies to[^]

- Agriculture
- Forestry
- Water supply
- Sewerage, wastewater management and remediation activities
- Conservation
- Construction
- Transportation and storage
- Education
- Human health and social work activities
- Other, please specify (public health; spatial planning; water; business; social services; any sector which requires planning permissions)

Co-benefits realized[^]

- Revenue generation
- Reduced costs
- Increased energy security
- Business/technological innovation
- Increased labor productivity
- Improved labor conditions
- Increased economic production
- Reduced congestion
- Reduced disruption of energy, transport, water or communications networks
- Increased water security
- Improved mobility and access
- Improved road safety
- Increased security/protection for poor/vulnerable populations
- Improved education and public awareness on climate issues
- Fewer or no households and businesses forced from homes/places of work
- Improved physical health
- Improved mental wellbeing/quality of life
- Improved preparedness for health service delivery
- Reduced disaster/disease/contamination-related health impacts
- Reduced premature deaths
- Reduced health costs
- Improved water/soil quality
- Increased/improved green space
- Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Short-term (by 2025)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

<10%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year[^]

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

25000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)[^]

Climate hazard(s) that action addresses^

River flooding
 Coastal flooding (incl. sea level rise)
 Storm
 Heavy precipitation
 Other, please specify (Surface water flooding)

Action description and web link to further information^

Sunderland prepares a Local Flood Risk Management Strategy every 5-6 years, with the most recent one being published in 2016 and the next due to be published soon.

The purpose of the LFRMS is to act as a robust guidance tool for Risk Management Authorities operating in Sunderland to deliver a coordinated, improved approach in all flood risk management activities. In addition, the overriding vision for the LFRMS is for Sunderland City Council to take a lead role in better understanding local flood risk. Providing this information in the form of the LFRMS will enable communities to also improve their own knowledge and understanding of the risk of flooding across Sunderland.

More information can be found at https://www.sunderland.gov.uk/media/23162/Local-flood-risk-management-strategy/pdf/Sunderland_LFRMS_-_Final_Version_-_Complete.pdf?m=637502096317830000

Sectors adaptation action applies to^

Agriculture
 Forestry
 Water supply
 Sewerage, wastewater management and remediation activities
 Construction
 Education
 Human health and social work activities
 Other, please specify (public health; spatial planning; water; business; social services; any sector which requires planning permissions)

Co-benefits realized^

Reduced costs
 Increased energy security
 Business/technological innovation
 Increased labor productivity
 Improved labor conditions
 Increased economic production
 Reduced congestion
 Reduced disruption of energy, transport, water or communications networks
 Increased water security
 Increased food security
 Improved mobility and access
 Improved road safety
 Increased security/protection for poor/vulnerable populations
 Improved education and public awareness on climate issues
 Fewer or no households and businesses forced from homes/places of work
 Improved physical health
 Improved mental wellbeing/quality of life
 Improved preparedness for health service delivery
 Reduced disaster/disease/contamination-related health impacts
 Reduced premature deaths
 Reduced health costs
 Improved water/soil quality
 Increased/improved green space
 Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Short-term (by 2025)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

<10%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

0

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Engineered and built environment actions	Flood defence, such as flood levees and culverts
--	--

Climate hazard(s) that action addresses^

River flooding
Coastal flooding (incl. sea level rise)
Storm
Heavy precipitation
Other, please specify (Surface water flooding)

Action description and web link to further information^

Sunderland City Council as landowner provides flood defence maintenance and improvement works along the River Wear and around the Port of Sunderland (which it owns). Major works were undertaken to ensure defences are fit for purpose through the Strategic Frontages 3 coastal project. Sunderland City Council also provides flood resilience from surface water flooding and it is expected that £38 million will be spent on increasing flood resilience in the city over a 5 year period from 2022-2027.

Sunderland City Council has proposed schemes for flood reduction to be funded by the Regional Medium-Term Plan. Major schemes delivered in 2022 include Deptford covers (£2m), Pallion (£1.5m), Strategic Frontage 3 at the Port and coast (£1m) and Hetton Caroline (£600k), as well as a number of smaller scale schemes worth £100k-150k. The Council is waiting for business cases to be approved by the Environment Agency for new projects.

<https://www.sunderland.gov.uk/article/17437/Flooding-drainage-and-water>

Sectors adaptation action applies to^

Agriculture
Forestry
Water supply
Sewerage, wastewater management and remediation activities
Public administration and defence; compulsory social security
Conservation
Construction
Other, please specify (public health; spatial planning; water; business; social services; any sector which requires planning permissions)

Co-benefits realized^

Reduced costs
Increased energy security
Business/technological innovation
Increased labor productivity
Improved labor conditions
Increased economic production
Reduced natural resource depletion
Reduced congestion
Reduced disruption of energy, transport, water or communications networks
Increased water security
Increased food security
Improved mobility and access
Improved road safety
Increased security/protection for poor/vulnerable populations
Improved education and public awareness on climate issues
Fewer or no households and businesses forced from homes/places of work
Improved physical health
Improved mental wellbeing/quality of life
Improved preparedness for health service delivery
Reduced disaster/disease/contamination-related health impacts
Reduced premature deaths
Reduced health costs
Improved water/soil quality
Increased/improved green space
Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Medium-term (2026-2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

<10%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources
Regional funds and programmes
National funds and programmes

Status of action in the reporting year^

Implementation underway with completion expected in less than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

7500000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Engineered and built environment actions	Improved drainage
--	-------------------

Climate hazard(s) that action addresses^

- River flooding
- Coastal flooding (incl. sea level rise)
- Storm
- Heavy precipitation
- Other, please specify (Surface water flooding)

Action description and web link to further information^

The provision of SuDS is a requirement in a range of planning policies in the Council's Core Strategy and as part of the master planning for Riverside Sunderland, the IAMP site and the South Sunderland Growth Area.

<https://www.sunderland.gov.uk/article/17437/Flooding-drainage-and-water>

Sectors adaptation action applies to^

- Forestry
- Sewerage, wastewater management and remediation activities
- Conservation
- Construction
- Other, please specify (public health; spatial planning; water; business; social services; any sector which requires planning permissions)

Co-benefits realized^

- Reduced costs
- Increased labor productivity
- Increased economic production
- Reduced congestion
- Reduced disruption of energy, transport, water or communications networks
- Increased water security
- Improved mobility and access
- Improved road safety
- Increased security/protection for poor/vulnerable populations
- Improved education and public awareness on climate issues
- Fewer or no households and businesses forced from homes/places of work
- Improved physical health
- Improved mental wellbeing/quality of life
- Improved preparedness for health service delivery
- Reduced disaster/disease/contamination-related health impacts
- Reduced premature deaths
- Reduced health costs
- Improved water/soil quality
- Increased/improved green space
- Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Short-term (by 2025)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

I do not have this data

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Ecosystem-based actions	Green infrastructure
-------------------------	----------------------

Climate hazard(s) that action addresses^

Extreme heat
Extreme cold
River flooding
Coastal flooding (incl. sea level rise)
Extreme wind
Storm
Heavy precipitation
Biodiversity loss
Other, please specify (air pollution; loss of green space / green cover; surface water flooding)

Action description and web link to further information^

Sunderland has a Green Infrastructure Strategy (SGIS) which supports the Core Strategy and Development Plan 2015-2033. SGIS builds upon Sunderland Council's Greenspace Audit and utilises a range of wider socio-economic and environmental indicators, relevant to the National Planning Policy Framework objectives, to map where there is greatest area-based need for the public benefits that green infrastructure brings.

To translate SGIS into a series of projects for delivery and action over the next 15 years, from 2018-2033, Sunderland also has a Green Infrastructure Delivery and Action Plan. A range of actions are set out in this document, some of which include the development of a 'Green Infrastructure Offsetting Matrix', creating filter strips and natural swales, permeable paving, wetlands and woodlands wherever feasible to help cope with flash flooding, repairing broken corridors, creating reed beds at stream sources to slow down flash flooding, increasing woodland cover, and creating buffer zones to protected wildlife sites.

Among a wealth of benefits, SGIS and Green Infrastructure Delivery and Action Plan help Sunderland's rural, urban and coastal communities mitigate the risks associated with climate change and adapt to its impacts through nature-based solutions by: storing carbon; improving drainage and managing flooding; improving water quality; supporting adaptive management in coastal infrastructure; reducing air pollution; and increasing shading cover.

Green Infrastructure improvements proposed also seek to improve the cycle network across the city and access to local facilities on foot, thereby promoting and encouraging a modal shift to active transport.

Note – the costs included reflect the total essential cost for the delivery of green infrastructure in the city, as stated in the Infrastructure Delivery Plan (available at https://www.sunderland.gov.uk/media/20388/Publication-Draft-Infrastructure-Delivery-Plan-2017-/pdf/66_Publication_Draft_Infrastructure_Delivery_Plan_2018.pdf?m=636644851765170000)

which gives further details on the associated costs with specific green infrastructure projects.

The Council has also commenced work to help improve green infrastructure / biodiversity in the local area. For example, the £250,000 Green Recovery Challenge Fund project – 'Healing Nature' – was completed in March 2022. Public events were attended by more than 800 people, and over 500 children from 29 schools engaged with nature through the project. Ten wildlife sites were improved in Sunderland with works including scrub removal, pond and wet grassland restoration and access improvements. In addition, the North East Community Forest and the Link Together project which are both discussed in section 9, each benefit biodiversity.

Sectors adaptation action applies to^

Forestry
Conservation
Construction

Co-benefits realized^

Reduced costs
Reduced fuel/energy poverty
Increased security/protection for poor/vulnerable populations
Increased social inclusion, equality and justice
Improved physical health
Improved mental wellbeing/quality of life
Improved air quality
Reduced disaster/disease/contamination-related health impacts
Reduced health costs
Reduced GHG emissions
Improved water/soil quality
Increased/improved green space
Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources
Regional funds and programmes
National funds and programmes

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)**Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^**

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Educational/Informational actions	Early warning and response systems
-----------------------------------	------------------------------------

Climate hazard(s) that action addresses^

- Extreme heat
- Extreme cold
- River flooding
- Coastal flooding (incl. sea level rise)
- Extreme wind
- Storm
- Heavy precipitation
- Biodiversity loss
- Other, please specify (Surface water flooding)

Action description and web link to further information^

As a city we receive Weather Warnings directly from the Met Office to enable mitigating action to be undertaken. In the case of a widespread Event the Local Resilience Forum would be stood up and we would deal with the situation in a Multi-Agency capacity as part of our well-established emergency planning and response approach.

<https://www.metoffice.gov.uk/>

Sectors adaptation action applies to^

Other, please specify (Public health)

Co-benefits realized^

- Reduced costs
- Increased economic production
- Reduced disruption of energy, transport, water or communications networks
- Improved road safety
- Increased security/protection for poor/vulnerable populations
- Improved education and public awareness on climate issues
- Fewer or no households and businesses forced from homes/places of work
- Improved physical health
- Improved mental wellbeing/quality of life
- Reduced health impacts from extreme heat or cold weather
- Reduced disaster/disease/contamination-related health impacts
- Reduced premature deaths
- Reduced health costs

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is not included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

0

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Government policies and programs actions	Disaster planning and preparedness
--	------------------------------------

Climate hazard(s) that action addresses^

- Extreme heat
- Extreme cold
- River flooding
- Coastal flooding (incl. sea level rise)
- Extreme wind
- Storm
- Heavy precipitation
- Biodiversity loss

Other, please specify (Surface water flooding; air pollution)

Action description and web link to further information^

The Northumbria Local Resilience Forum (LRF) Community Risk Register lists Adverse Weather and Failure of Essential Services as a top risk in the North East and gives advice to the community as to how to mitigate.

Sunderland City Council is also following the recommended guidance from both the UK Heatwave and UK Cold Weather Plans, which further guide public agencies to reduce the risks to health from these respective climate hazards.

<https://www.gateshead.gov.uk/media/2879/Northumbria-community-risk-register-booklet/pdf/Northumbria-Community-Risk-Register-version-6.pdf?m=636409117667530000>

Sectors adaptation action applies to^

Other, please specify (Public Health)

Co-benefits realized^

Increased security/protection for poor/vulnerable populations
Improved education and public awareness on climate issues
Reduced health impacts from extreme heat or cold weather
Reduced disaster/disease/contamination-related health impacts
Reduced health costs

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Other, please specify source(s) (N/A)

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is not included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

0

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Ecosystem-based actions	Increasing biological diversity
-------------------------	---------------------------------

Climate hazard(s) that action addresses^

Extreme heat
Extreme cold
Heavy precipitation
Biodiversity loss
Other, please specify (Loss of green space/green cover)

Action description and web link to further information^

The Council is installing living roofs on bus shelters across Sunderland, as it continues to drive green infrastructure development to enhance local biodiversity.

Two new bus shelters outside the University of Sunderland and Chesters Pub on Chester Road are the first phase of a plan to install around 90 living roof bus shelters across the city as part of a new contract between Sunderland City Council and Clear Channel UK.

Nicknamed 'Bee Bus Stops', living roofs have been specially designed by Clear Channel and expert ecologists to support native biodiversity, help create healthier local communities, and bring greenery back into urban areas. Each is planted with a mix of native wildflower species selected to aid and support bees and other pollinators, whose numbers are sadly in decline.

The living roofs also help provide natural cooling to counteract the effects of 'urban heat islands', help absorb rainwater to help alleviate flooding, and filter fine dust particles from the air. They sit atop brand-new shelters, finished to be in keeping with the city's existing shelters, and built using a range of recycled materials.

The Royal Society of Wildlife Trusts' independent third-party ecologists have classed the living roof product as being of 'high strategic significance', saying they can make a significant contribution to delivering Biodiversity Net Gain.

These 90 shelters will be among the 137 bus shelters to be replaced by Clear Channel in Sunderland.

As well as the replacement of the shelters, Clear Channel have also introduced free-standing advertising units to the city centre, with new, high-tech 'Wafterlite' digital units, which are thinner and 50% more energy efficient than the existing digital screens.

In addition to living bus shelters, Sunderland is also constructing living walls. Two living walls made with over 50,000 plants and spanning 6,000sqft have recently been unveiled in the city centre at Farringdon Row multi-storey carpark in Riverside Sunderland.

Sectors adaptation action applies to^

Conservation
Construction

Co-benefits realized^

Reduced natural resource depletion
Improved education and public awareness on climate issues
Improved mental wellbeing/quality of life
Improved air quality
Reduced health impacts from extreme heat or cold weather
Reduced GHG emissions
Increased/improved green space
Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources
Public-private partnerships

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Action (selections mandatory)^

Educational/Informational actions	Systematic monitoring and remote sensing
-----------------------------------	--

Climate hazard(s) that action addresses^

River flooding
Coastal flooding (incl. sea level rise)
Storm
Heavy precipitation
Other, please specify (Surface water flooding)

Action description and web link to further information^

As part of its Smart City Joint Venture, Sunderland City Council is deploying sensors across the city to enable real-time measurement of environmental conditions. This includes new solar-powered rainfall buckets to help anticipate local flooding.

Until recently, Sunderland City Council collected rainfall data by visiting rainfall bucket sites and manually exporting historic rainfall data. The new rainfall buckets will connect to Sunderland's LoRaWAN network to report on and share rainfall data every 15 minutes. This will save time for teams collecting data, and help the Council make better, data-informed decisions. The rainfall data is used for flood modelling, to provide storm frequencies and better understand flooding in the south of the city and the Coalfields. By supporting teams to understand rainfall in near real-time, proactive warnings and interventions can be enabled. For example, accessing real-time data on abnormal rainfall can alert services to storm events.

<https://www.baicommunications.com/case-study/new-solar-powered-rain-buckets-deployed-in-sunderland/>

Sectors adaptation action applies to^

Conservation
Information and communication
Other, please specify (Public health)

Co-benefits realized^

Reduced costs
Business/technological innovation
Reduced natural resource depletion
Reduced disruption of energy, transport, water or communications networks
Increased security/protection for poor/vulnerable populations
Improved education and public awareness on climate issues
Fewer or no households and businesses forced from homes/places of work
Reduced health costs

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Proportion of natural systems with increased resilience due to adaptation action

I do not have this data

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

9. Mitigation Actions

(9.1) Describe the outcomes of the most significant mitigation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phases.

Primary emissions sector addressed and action type (selections mandatory)^

Generation of grid-supplied energy	Smart grid
------------------------------------	------------

Action description and web link to further information^

The proposed Microgrid at the International Advanced Manufacturing Park (IAMP) is designed to bring together energy generation, consumption, and storage to secure both cost reduction and decarbonisation benefits.

Sunderland City Council, working closely with industry partners, led on the initial development and commercialisation of this project which aims to deliver 100% renewable electricity and to save over 55,000 tonnes of carbon annually.

The Microgrid requires several key elements:

- (1) Direct connection to the National Grid (NG) transmission network, to enable a move to transmission rather than distribution network charging.
- (2) Private wire distribution network installed between the NG direct connection and the energy off-takers.
- (3) Renewable energy generation plugged into private wire network (either in front of or behind the meter) to balance the demand from the national grid.
- (4) Battery storage systems to assist in aggregating and balancing excess generation and demand between off-takers.
- (5) An ability to export generated/stored energy from the Microgrid back to the National Grid.
- (6) A private sector Funder/Operator to underwrite the cost of and to manage all of the above.
- (7) A UK registered energy retailer (if role not provided by Funder/Operator).
- (8) A firm baseload of high energy demand off-takers.
- (9) Co-creation of the financial and operational model to include a clear return on investment following the initial capital investment.
- (10) Risk mitigation in relation to resilience and tariff stability.
- (11) Clear local/regional/national policy direction in relation to implementation of renewables and decarbonisation.

Significant progress has already been made on the Microgrid development.

- A direct connection to the transmission has been secured with National Grid to 255MVA;
- Design works for the National Grid (275/66kV) incoming sub-station and the private (66kV) distribution sub-station are complete;
- Planning submissions have been made by National Grid to Sunderland City Council with determination expected in Autumn 2023;
- A preferred Funder/Operator/Retailer has been secured for development of the Microgrid and all National Grid connection agreements have been novated to this preferred party;
- Detailed design work is underway for the proposed private wire network alongside commercial discussions.

The microgrid development represents a significant opportunity for private sector investment including renewable generation to create an environment whereby electric vehicles are being manufactured at scale from green energy.

The proposed microgrid network is expected to be energised and operational from Q.2 2026.

<https://www.sunderland.gov.uk/article/19177/Nissan-unveils-EV36Zero-a-1bn-Electric-Vehicle-EV-Hub-to-accelerate-the-journey-to-carbon-neutrality>

Start year of action

2020

Year for which mitigation is expected to last

2050

Impact indicators measured^

Estimated emissions reductions due to action

Estimated annual renewable energy generated due to action

Estimated emissions reductions (metric tons CO2e)^

55000

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

76000

Co-benefits realized^

Job creation
Increased energy security
Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Enhanced climate change adaptation

Funding source(s)

National funds and programmes
Public-private partnerships

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

80000000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Energy consumption from renewable energy sources (increase)
Installed capacity of renewable energy sources within local boundary (increase)
Total energy generated from renewable energy sources within local boundary (increase)
Percentage of municipality population or households with access to electricity (increase)
Average duration of available electricity (increase)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	On-site renewable energy generation
-------------------	-------------------------------------

Action description and web link to further information^

Phase 1 of the Riverside Sunderland project follows the development of the Beam and City Hall and includes Vaux housing, a new multi-storey carpark, two additional commercial buildings (Faber & Maker) as well as the new Eye Hospital and HICSA.

Vaux Housing Smart Energy Grid project aims to implement a smart energy network combining renewable generation and demand side management for 132 new homes on the Vaux site. DLUHC confirmed £2,054,895 ERDF support on 21/04/21. Delivery is underway with a scheduled completion date for the whole site of June 2024.

Planning approval has been granted for Vaux housing, Maker and Faber, HICSA and the Eye. Furthermore, planning will be brought forward for HICSA during this year. Delivery plans are in place for approved schemes.

The carbon savings, energy savings, and renewable energy generation figures refer specifically to Vaux housing. Further detailed figures will be developed for the remaining aspects of phase 1 of Riverside Sunderland as a whole at the appropriate time.
<https://sunderlandexpo.com/>

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action
Estimated annual energy savings due to action
Estimated annual renewable energy generated due to action

Estimated emissions reductions (metric tons CO2e)^

227

Estimated annual energy savings (MWh)^

437

Estimated annual renewable energy generation (MWh)^

110

Co-benefits realized^

Increased energy security
Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Enhanced climate change adaptation

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

41436325

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

Energy consumption from renewable energy sources (increase)
 Installed capacity of renewable energy sources within local boundary (increase)
 Total energy generated from renewable energy sources within local boundary (increase)
 Percentage of municipality population or households with access to electricity (increase)
 Average duration of available electricity (increase)

Primary emissions sector addressed and action type (selections mandatory)[^]

Agriculture, Forestry and Land Use	Forest restoration
------------------------------------	--------------------

Action description and web link to further information[^]

Sunderland City Council and partners (the Woodland Trust, the Forestry Commission as well as the other 6 North Eastern Local Authorities), recently submitted a successful bid to England Community Forests and DEFRA to form the North East Community Forest (NECF) Partnership. It was launched in February 2022. The NECF partnership will plant 500 hectares deliverable by 2025.

The North East Community Forest (NECF) will assist with tackling three global crises on a regional scale: climate change, biodiversity collapse and the physical and mental health impacts of COVID-19. In addition to protecting and enhancing our existing tree stock, we can: reduce the risk of flooding, create new habitat for wildlife, improve air quality, provide positive impacts on human health and wellbeing, boost the economy, provide new jobs, provide timber for sustainable building and energy production, and store thousands of tonnes of carbon.

Additionally, we will engage, work with and be supported by the wider community, which will include, but not be limited to: NGOs, professional bodies and local partnerships, national infrastructure providers, businesses, community groups, the education and environment sector, private and public landowners, local environmental charities, the health sector, communities and individuals.

The main funding source between 2021-25 is Trees for Climate DEFRA funding. If Sunderland delivers 45 hectares of woodland in this timeframe, then it is estimated that £765,000 funding will be unlocked. Further funding sources are expected to be unlocked and this is expected to become a multi-million-pound project over its lifetime. The £12,750 figure in the 'total cost provided by local government' box relates to Sunderland City Council's annual contribution for the first year and is subject to change annually.

The NECF was launched in February 2022 and during the first planting season for the NECF (2021/22), Sunderland planted 8462 whips; 90 orchard trees (to encourage local growing); 6777 hedge plants across 1360 metres; 7.37ha of wildflower meadow seeding. During the second planting season (2022/23), Sunderland planted 2000 whips; 487 street trees / public realm standard trees; 189 orchard trees; 2412 hedge plants across 400m; 2.48ha of wildflower meadow seeding; 14000 bulbs. Sunderland aims to deliver at least 13ha of new tree planting in 2023/24.

Sunderland is also undertaking further schemes on a local level, such as:

- In 2021/22 Sunderland secured £50,000 through the Local Authority Treescapes Fund Round 1 (LATF1) and delivered 61 standard trees and 783 whips.
- In 2021/22 2,500 whips / street trees were planted as part of the Sunderland Strategic Transport Corridor 3 project.
- In 2021/22 two community tree planting events took place – both at Elemore Park. The first one in December 2021 involved 60 children (from 6 different schools) and they helped to plant 420 trees. The second one in March 2022 involved 38 volunteers, helping to plant 400 trees.
- In 2022/23 Sunderland secured £70,000 through the Local Authority Treescapes Fund Round 2 (LATF2) and delivered 68 standard trees.
- In March 2023 two community tree planting events took place. The first event at Downhill Sports Complex involved 15 volunteers who helped to plant over 300 trees; the second event was held at St Mary's RC primary School where 25 schoolchildren and 10 volunteers carried out a tree planting ceremony, planting 1 heavy standard tree, and 100 hedgerow whips.

<https://www.newcastle.gov.uk/northeastcommunityforest/>

Start year of action

2021

Year for which mitigation is expected to last

2036

Impact indicators measured[^]

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)[^]

471

Estimated annual energy savings (MWh)[^]

<Not Applicable>

Estimated annual renewable energy generation (MWh)[^]

<Not Applicable>

Co-benefits realized[^]

Job creation
 Reduced costs
 Reduced natural resource depletion
 Reduced disruption of energy, transport, water and communications networks
 Increased food security
 Increased security/protection for poor/vulnerable populations
 Improved education and public awareness
 Enhanced climate change adaptation

Enhanced resilience to shocks and disasters
Improved physical health
Improved mental wellbeing/quality of life
Improved air quality
Reduced health impacts from extreme heat or cold weather
Reduced disaster/disease/contamination-related health impacts
Reduced premature deaths
Reduced health costs
Improved water/soil quality
Increased/improved green space
Protected/improved biodiversity and ecosystem services

Funding source(s)

Jurisdiction's own resources
Regional funds and programmes
National funds and programmes
International (including ODA)

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

765000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	On-site renewable energy generation
-------------------	-------------------------------------

Action description and web link to further information^

The Council is hoping to utilise renewable energy in the form of minewater and / or other sustainable heat sources in the city centre, as well as district heating opportunities citywide.

Regarding the city centre, phase 1 of the project will be focused across City Council buildings and those of key partners. A high-level feasibility review of mine workings beneath the city centre, identifying the overlay of heat demand, potential abstraction points and envisaged temperatures has been completed. The Council has also prepared an outline business case for this project and stakeholder engagement is ongoing. Green Heat Network – Transition Scheme Funding has been secured and a borehole contractor is being appointed to design the boreholes, however increases in construction and steel prices mean the existing budget is insufficient to drill at production scale, the Department for Energy Security and Net Zero (DESNZ) are considering a further grant funding request, while the drilling contractor and Coal Authority are considering other de-risking options that could be achieved within budget.

In parallel, for the wider Sunderland Central district heating project; the Council are about to launch, what is hoped to be, an industry reforming procurement strategy. Seeking a funder/operator to formally engage at the commercialisation stage and enter into a Joint Development Agreement (JDA), if successful that same funder/operator would proceed to delivery.

Regarding citywide district heating opportunities, in autumn 2021 DESNZ consulted on proposals for the implementation of Heat Network Zones in the England. The overall aim of this is to develop heat networks in zones where they can provide the lowest cost low carbon heat to the end-consumer in England through regulation, mandating powers, and market support. Sunderland is 1 of 28 pilot cities assisting DESNZ with developing and piloting their methodology for heat network zoning – working with major and large energy users among the city's business community and public sector. The figures for CO2 savings and renewable energy production are for the phase 1 of the city centre scheme at Riverside Sunderland, and there is capacity and scope for expansion beyond this.

Weblink not yet available.

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action
Estimated annual renewable energy generated due to action

Estimated emissions reductions (metric tons CO2e)^

4100

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

33000

Co-benefits realized^

Job creation
Increased energy security

Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Enhanced climate change adaptation
Enhanced resilience to shocks and disasters
Improved air quality
Improved preparedness for health service delivery
Reduced health impacts from extreme heat or cold weather

Funding source(s)

Jurisdiction's own resources
National funds and programmes
Public-private partnerships

Status of action in the reporting year^

Feasibility finalized, and finance partially secured

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

43000000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Energy consumption from renewable energy sources (increase)
Source mix of thermal energy (heating and cooling) consumed within local boundary (increase) (More low carbon heat will be available.)
Installed capacity of renewable energy sources within local boundary (increase)
Total energy generated from renewable energy sources within local boundary (increase)
Percentage of households within the municipality with access to clean cooking fuels and technologies (increase)
Percentage of households or population within the city boundary that spending up to X% of income on energy service (decrease)
Percentage of municipality population or households with access to electricity (increase)
Average duration of available electricity (increase)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
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Action description and web link to further information^

The Public Sector Decarbonisation Scheme (PSDS) funds capital energy efficiency and heat decarbonisation projects within public sector non-domestic buildings including central government departments and arm's length bodies in England. PSDS supports the aim of reducing emissions from public sector buildings by 75% by 2037, as set out in the 2021 Net Zero and Heat and Buildings strategies.

After a successful £2.2m bid to decarbonise 8 municipal buildings through PSDS Wave 1, Sunderland City Council submitted a targeted bid to PSDS Wave 3a seeking £792,500 grant support towards £873,473 total project costs to replace old gas boilers and install low carbon heating systems and fabric measures at 2 community sites in the city – Thorney Close Action and Enterprise Centre, and the Rainbow Family Centre in Washington. Unfortunately, this bid was unsuccessful.

After a successful bid to Phase 1 of the Public Sector Decarbonisation Scheme (PSDS1), Sunderland City Council carried out heat decarbonisation and energy efficiency measures to 8 operational buildings. Works were completed in summer 2022. Sunderland City Council also submitted a targeted bid to PSDS Wave 3a seeking £792,500 grant support towards £873,473 total project costs to replace old gas boilers and install low carbon heating systems and fabric measures at 2 community sites in the city – Thorney Close Action and Enterprise Centre, and the Rainbow Family Centre in Washington. Unfortunately, this bid was unsuccessful. The Council continues to assess future PSDS funding waves.

Phase 3c, the next application window, is expected to open to applications in autumn 2023 and a date for phase 4 is to be confirmed in the coming months. Future PSDS applications will be supported through ongoing work delivered by the Strategic Energy Advisor (Jacobs) and Nomad Energy Solutions Ltd (further discussed in questions 3.1 and 9.1 respectively).

The Council has procured two pieces of work which will support development of its next PSDS applications – a Strategic Energy Advisor project (through which Jacobs were appointed) and a multi-year project as part of the city's Smart City Joint Venture bringing together BAI Communications and Nomad Energy Solutions.

<https://www.gov.uk/government/collections/public-sector-decarbonisation-scheme>

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action
Estimated annual energy savings due to action

Estimated emissions reductions (metric tons CO2e)^

375

Estimated annual energy savings (MWh)^

1574

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Reduced costs
Increased energy security
Enhanced climate change adaptation
Improved preparedness for health service delivery

Funding source(s)

National funds and programmes

Status of action in the reporting year[^]

Implementation underway with completion expected in less than one year

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

2219000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

Energy consumption from renewable energy sources (increase)
Installed capacity of renewable energy sources within local boundary (increase)
Total energy generated from renewable energy sources within local boundary (increase)
Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)[^]

Waste	Recycling or composting collections and/or facilities
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Action description and web link to further information[^]

The new Household Waste Recycling Centre at Pallion Industrial Estate is larger than the old facility at Beach Street. The split-level design makes it easier for householders to use the waste containers, with no steps to climb, and operationally it is possible to change over the waste containers without having to temporarily close the site.

The new facility is more efficient, with better facilities and opportunities to recycle and re-use more waste materials. This will help increase the amount of household waste recycled, reduce congestion and be more user friendly for residents.

The site also includes a purpose-built recycling/re-use shop which opened in January 2023. The shop, which is situated on site has its own car park and pedestrian access. Any re-usable items such as furniture, working electrical items, clothing, bikes, toys, books, CDs, bric-a-brac and other household items can be donated directly to the re-use shop, where donations can be sold at low prices and enjoyed by somebody else. As at April 2023, 9 tonnes of waste had been diverted from EfW via the reuse shop, equating to an estimated 191.52kgCO₂e

<https://www.sunderland.gov.uk/article/17179/New-Household-Waste-Recycling-Centre>

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured[^]

Estimated emissions reductions due to action
Other impact indicator, please specify (citywide reuse / recycling rates)

Estimated emissions reductions (metric tons CO₂e)[^]

0.2

Estimated annual energy savings (MWh)[^]

<Not Applicable>

Estimated annual renewable energy generation (MWh)[^]

<Not Applicable>

Co-benefits realized[^]

Job creation
Reduced natural resource depletion
Enhanced climate change adaptation
Improved waste management

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year[^]

Implementation complete in the reporting year

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

5000000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
-------------------	---

Action description and web link to further information^

Through the Green Homes Grant Local Authority Delivery Phase 2 project (LAD2), Sunderland City Council completed 386 retrofit measures across 215 properties to improve energy efficiency and reduce carbon emissions. The total delivery cost at the end of the project was £1,738,912.04. Estimated figures for carbon and energy savings are unavailable.

Improvements included solar roof panels, room-in-roof (attic) insulation, top up loft insulation to 300mm, cavity wall insulation, solid wall insulation, underfloor insulation (ground floor only), air source heat pumps and heating control upgrades.

The LAD scheme aimed to raise the energy efficiency of low-income and low EPC rated homes including those living in the worst quality off-grid gas homes, delivering progress towards reducing fuel poverty, phasing out the installation of high carbon fossil fuel heating and supporting the UK's commitment to net zero by 2050.

Estimated figures for carbon and energy savings are not available.

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

None of the above impacts associated with this action have been measured

Estimated emissions reductions (metric tons CO2e)^

<Not Applicable>

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

- Job creation
- Increased energy security
- Reduced natural resource depletion
- Improved physical health
- Improved mental wellbeing/quality of life
- Improved air quality
- Improved preparedness for health service delivery

Funding source(s)

- Jurisdiction's own resources
- National funds and programmes

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

1700000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

- Energy consumption from renewable energy sources (increase)
- Installed capacity of renewable energy sources within local boundary (increase)
- Percentage of households within the municipality with access to clean cooking fuels and technologies (increase)
- Percentage of municipality population or households with access to electricity (increase)
- Average duration of available electricity (increase)
- Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	LED / CFL / other luminaire technologies
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Action description and web link to further information^

Over the last 5 years, the Council has replaced over 48,000 streetlights across the city with LED lighting. Since the start of the project in November 2016, this has reduced annual energy consumption from streetlighting by over 20,000MWh, and annual carbon savings of 5,370 tonnes.

In addition to the street lighting replacement scheme, the Council has also completed LED lighting to street lit signs. Further LED lighting upgrades to parks, associated buildings and traffic signals are ongoing and will deliver additional carbon and energy savings.

<https://www.sunderland.gov.uk/report-street-lighting>

Start year of action

2016

Year for which mitigation is expected to last

End year not known/not applicable

Impact indicators measured^

Estimated emissions reductions due to action
Estimated annual energy savings due to action

Estimated emissions reductions (metric tons CO2e)^

557

Estimated annual energy savings (MWh)^

2200

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Job creation
Reduced costs
Improved road safety
Improved air quality
Reduced noise/light pollution

Funding source(s)

National funds and programmes

Status of action in the reporting year^

Implementation complete in the reporting year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

1750000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
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Action description and web link to further information^

Sunderland City Council delivered the Business Renewables Energy Efficiency Sunderland (BREEZ) project, which helped Small and Medium-Sized Enterprises (SMEs) to install energy efficiency measures. BREEZ was funded through ERFC, with an overall objective of BREEZ was to reduce energy consumption and enable carbon reduction in a compliant and cost-effective way. This was achieved by upgrading old, inefficient systems with new, energy-efficiency upgrades that have been approved and agreed prior to their installation. Typically, BREEZ offered 50% grant funding towards microgeneration (e.g., Photovoltaics), insulation, low-carbon heating upgrades and LED lighting. Grant support for upgrading business process equipment was also sometimes available. As at the end of the project in May 2023, 83 SMEs had been engaged (including audits, advice and guidance). 74 grants have been claimed with a total value of £532,449.

In addition to the BREEZ project, Sunderland was also part of the Business Energy Saving Team (BEST) which ran until March 2022. BEST was also funded by the European Regional Development Fund (ERDF) and delivered by local authorities in North East England. The BEST team provided businesses with a full energy audit, designed to help identify ways to save energy, money, and carbon emissions. If businesses met certain criteria the BEST team could also provide a grant to help cover costs. As of the end of BEST in March 2022, Sunderland City Council lead the regional performance table, with 21 approvals, 14 grants claimed, and a total project value of £130,000 invested in energy efficiency improvements saving 327 tonnes of carbon equivalent. Note - annual CO2e emissions reduction estimates are for BEST only as BREEZ figures are currently unavailable.

Both BREEZ and BEST involve close cooperation between project staff from the Council and the wider Business Investment Team and businesses. Plans are underway to develop a successor scheme to begin in Autumn 2023.

<https://www.bing.com/search?q=sunderland+breez&cvid=d56897836dd845d39f08c28bf23cda03&aqs=edge.0.019.1861j0j4&FORM=ANAB01&PC=U531>

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)^

327

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Reduced costs
Increased energy security
Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Enhanced climate change adaptation

Funding source(s)

International (including ODA)

Status of action in the reporting year^

Implementation complete in the reporting year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

662449

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Energy consumption from renewable energy sources (increase)
Installed capacity of renewable energy sources within local boundary (increase)
Total energy generated from renewable energy sources within local boundary (increase)
Average duration of available electricity (increase)
Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
-------------------	---

Action description and web link to further information^

Sunderland City Council secured funding in March 2022 to support low carbon / fuel poverty measures through the Warm Homes Fund.

Lot 1 of the Warm Homes Fund project aims to fit 135 air source heat pumps in electrically heated low-income low-energy efficiency private properties.

Lot 2 aims to deliver complementary energy efficiency advice and support targeting these properties, bringing together local organisations (Groundwork North East, Citizens Advice Bureau, as community partners) to provide energy efficiency services, debt advice and health related programmes for up to 500 fuel poor residents.

Estimated savings are a high-level estimate and a more accurate figure can be provided in July 2024 , when the archetypes of properties benefitting from the project are better understood.

<https://www.affordablewarmthsolutions.org.uk/warm-homes-fund/>

Start year of action

2022

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)^

270

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Job creation
Reduced costs
Increased energy security
Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Increased security/protection for poor/vulnerable populations
Enhanced climate change adaptation
Enhanced resilience to shocks and disasters
Improved physical health
Improved mental wellbeing/quality of life
Improved air quality
Reduced premature deaths
Reduced health costs

Funding source(s)

Jurisdiction's own resources

National funds and programmes

Status of action in the reporting year[^]

Implementation underway with completion expected in less than one year

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

948143

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

Please select

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

- Energy consumption from renewable energy sources (increase)
- Source mix of thermal energy (heating and cooling) consumed within local boundary (increase) (local renewable heating)
- Installed capacity of renewable energy sources within local boundary (increase)
- Total energy generated from renewable energy sources within local boundary (increase)
- Percentage of households within the municipality with access to clean cooking fuels and technologies (increase)
- Average duration of available electricity (increase)
- Average yearly energy consumption per capita (increase)

Primary emissions sector addressed and action type (selections mandatory)[^]

Transportation	Advance micromobility transportation
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Action description and web link to further information[^]

Sunderland worked with E-Scooter providers Neuron (March 2021 – November 2022) and Zwings (January – May 2023) as well as the Department for Transport to trial E-Scooters in the city.

Sunderland City Council's e-scooter trial began in March 2021 with e-scooters deployed across the city within a controlled geofenced zone.

The trial was aimed at:

- Assisting the Department for Transport in their decision to legalise e-scooters.
- Helping our local economy recover from COVID-19 by providing the city with a safe, socially-distanced and environmentally-friendly transport option.
- Supporting objectives of City Council's Low Carbon Framework, to become a carbon neutral city by 2040 and a Carbon neutral Council by 2030.
- Commuter journeys to key employment and education routes from City Centre to Hospital & University
- Leisure Journeys for visitors and tourists along Seafront, linking City Centre and Metro stations

The Neuron E-Scooters made over 124,000 journeys in 2022, covering more than 250,000km. The trial area was also expanded in May 2022, seeing the scooters become available at the IAMP Area and at Washington Road, meaning a wider demographic can benefit from a further radius and more availability.

Zwings took over from Neuron as the provider of E-Scooters in Sunderland in January 2023, however unfortunately left the city in May 2023. During this period, the Zwings E-Scooters travelled a total of 3,239 miles. The City Council is continuing to explore micro-mobility opportunities in the future.

<https://www.mysunderland.co.uk/article/20154/What-are-we-doing>

Start year of action

2021

Year for which mitigation is expected to last

End year not known/not applicable

Impact indicators measured[^]

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)[^]

8

Estimated annual energy savings (MWh)[^]

<Not Applicable>

Estimated annual renewable energy generation (MWh)[^]

<Not Applicable>

Co-benefits realized[^]

- Revenue generation
- Reduced costs
- Business/technological innovation
- Increased economic production
- Reduced natural resource depletion
- Reduced congestion
- Reduced disruption of energy, transport, water and communications networks
- Improved mobility and access
- Improved road safety
- Improved physical health
- Improved mental wellbeing/quality of life
- Reduced noise/light pollution

Funding source(s)

National funds and programmes

Status of action in the reporting year[^]

Action in operation (across most of jurisdiction)

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

0

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)[^]

Transportation	Improve bus infrastructure, services, and operations
----------------	--

Action description and web link to further information[^]

The North East's first Bus Service Improvement Plan (BSIP) outlines region-wide ambitions to make buses more attractive by making them an affordable and practical alternative to using private cars for more people and helping existing bus users to travel more frequently. The ambitious plan aimed to return bus ridership – which at the time of publication were 25% lower than before the pandemic – to pre-Covid levels by March 2023 end of the next financial year and to grow by 10% each year thereafter. This would provide a major economic boost to the region, reduce road congestion, and contribute towards climate change targets.

The BSIP aims to:

- Repair the damage caused by COVID-19 to bus ridership in the North East by returning to the 162m million trips by March 2023.
- Grow bus patronage, targeting a growth of 10% on the 2019 baseline by March 2024 and a further 10% by March 2025.
- Grow bus modal share by 1 percentage point by March 2024, and another 1% by March 2025.
- Grow bus passenger satisfaction to 92% by March 2024 and 93% by March 2025.
- Make buses faster, punctual and reliable.
- Make buses greener, bringing them all to Euro 6 or better by March 2025.

The numerous measures proposed include improvements to timetables and fares, extensive priority measures on roads and at junctions to speed buses up – including two new Park & Ride sites for the region, new and attractive waiting facilities, a set of affordable fare "caps" that work across all buses and Metro services, lower fares for many young people and simplified and improved information.

<https://www.transportnortheast.gov.uk/strategy-and-policy/bus-service-improvement-plan/>

Start year of action

2022

Year for which mitigation is expected to last

End year not known/not applicable

Impact indicators measured[^]

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO₂e)[^]

356

Estimated annual energy savings (MWh)[^]

<Not Applicable>

Estimated annual renewable energy generation (MWh)[^]

<Not Applicable>

Co-benefits realized[^]

Reduced congestion
 Reduced disruption of energy, transport, water and communications networks
 Improved mobility and access
 Improved road safety
 Increased social inclusion, equality and justice
 Improved air quality
 Reduced noise/light pollution

Funding source(s)

National funds and programmes
 Public-private partnerships

Status of action in the reporting year[^]

Feasibility finalized, and finance partially secured

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

880000000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)[^]

Transportation	Improve fuel economy and reduce CO2 emissions from trucks
----------------	---

Action description and web link to further information^

Sunderland City Council commenced a 24-month trial for the city's first electric Refuse Collection Vehicle (RCV) in June 2021 to help lower CO2 emissions from the transportation of waste.

The Dennis Eagle e-Collect has joined Sunderland City Council's growing EV fleet that is helping to reduce carbon emissions, keep the air cleaner, and be more cost-effective and efficient for council-tax payers.

It is understood to be the first of its kind in the North East region.

In 2022, the Dennis collected 3,925 tonnes of waste, clocked 6,047 miles and completed 203,243 bin lifts.

Start year of action

2021

Year for which mitigation is expected to last

End year not known/not applicable

Impact indicators measured^

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)^

13

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

- Reduced costs
- Increased energy security
- Business/technological innovation
- Improved labor conditions
- Reduced natural resource depletion
- Improved air quality
- Improved waste management
- Reduced noise/light pollution

Funding source(s)

International (including ODA)

Status of action in the reporting year^

Action in operation (jurisdiction-wide)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

415000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Transportation	Improve fuel economy and reduce CO2 emissions from motorized vehicles
----------------	---

Action description and web link to further information^

The council-led Mobility Hub aims to bring about reduced emissions, increase active travel and promote improved health and wellbeing among the council's workforce, with a wider ambition to offer sustainable modes of transport to the public in due course as people become increasingly discerning about the impact of their lifestyle and choices on the planet. Now fully operational for Council employees operating from City Hall, it is expected that in future the hub will also be of particular benefit to the 10,000 people who will eventually work from Riverside Sunderland, as well as the 2,500 residents who will live in the area when the site is fully developed.

10 Nissan Leafs arrived in the mobility hub in March 2022 and are available to City Hall staff. During the first 12 months of operation the Leafs covered a cumulative 36,112 miles saving 10.7tCO2e against a medium sized petrol vehicle.

Linking with a solar energy project for St Mary's Multi Storey Car Park, where the majority of the EVs are kept, allows for grey fleet mileage not only to be replaced by zero tailpipe emissions, but for many of these miles to be powered by renewable electricity.

<https://carboncopy.eco/initiatives/electric-vehicle-mobility-hub>

Start year of action

2021

Year for which mitigation is expected to last

End year not known/not applicable

Impact indicators measured^

Estimated emissions reductions due to action

Estimated emissions reductions (metric tons CO2e)^

11

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Reduced costs
 Business/technological innovation
 Increased labor productivity
 Improved labor conditions
 Reduced natural resource depletion
 Reduced congestion
 Improved mobility and access
 Improved air quality
 Reduced noise/light pollution

Funding source(s)

National funds and programmes

Status of action in the reporting year^

Action in operation (targeted to sector/location)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)**Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^**

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
-------------------	---

Action description and web link to further information^

Sunderland Council commenced a £10,000 Innovation Challenge with the Digital Catapult to identify an SME to develop and pilot a digital product or service which can improve energy efficiency within Council buildings. The proposal began with two test sites and the solution is required to be scalable. The challenge was launched in summer 2021. Nomad Energy Solutions Ltd was the successful SME and focused its pilot on the Evolve and Leechmere Centres operated by the City Council.

Initially, the Council worked to provide Nomad with key information such as half-hourly data at both sites in addition to floorplans, technical drawings and BMS. Nomad then visited both sites with the Council's Mechanical Building Services Engineer and Building Managers, and installed CO2 sensors which would provide more detailed monitoring for several months. This also involved integrating the solution with BAI Communication's LORAWAN network as part of the Council's Smart City Joint Venture. Monitoring was undertaken throughout the project and early reports provided some quick solutions to improve energy efficiency. The Council implemented changes based on these recommendations and the final reports on the Evolve and Leechmere centres were provided to the Council in April 2022. These reports presented data which showed the impact of the early recommendations and provided the Council with a range of further short- medium and long-term recommendations to decarbonise each building.

. After a successful pilot on the Evolve and Leechmere Centres, the Council has taken the decision to continue their partnership with Nomad and BAI and is scaling the project up to help address emissions from further properties. This process will be undertaken in phases, with the next phase of the project focusing on a further 12 buildings. This includes a mixture of Council, Together for Children and Sunderland Care and Support properties and consists of a mixture of offices, business centres, depots, schools and museums. The Council has provided Nomad with initial data and Nomad has already visited each site, with sensor installation ongoing during summer 2023.

The carbon savings from short-term actions taken so far at Evolve and Leechmere equates to 111tCO2e, with the potential to achieve a further 76tCO2e from recommended longer-term measures. As part of the next phase of the project, it is expected that further emissions savings will be achieved as the Council act on the recommendations made at Evolve and Leechmere and as more buildings are assessed through the project. Furthermore, it is projected that work on the further 12 buildings could lead to carbon savings of 839tCO2e.

Start year of action

2021

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Estimated emissions reductions due to action
 Estimated annual energy savings due to action

Estimated emissions reductions (metric tons CO2e)^

1026

Estimated annual energy savings (MWh)^**Estimated annual renewable energy generation (MWh)^**

<Not Applicable>

Co-benefits realized^

Revenue generation
Reduced costs
Increased energy security
Business/technological innovation
Increased economic production
Reduced disruption of energy, transport, water and communications networks
Improved air quality

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

10000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Energy consumption from renewable energy sources (increase)
Installed capacity of renewable energy sources within local boundary (increase)
Total energy generated from renewable energy sources within local boundary (increase)
Average duration of available electricity (increase)
Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)^

Transportation	Electric vehicle charging points and infrastructure
----------------	---

Action description and web link to further information^

The £10m Local Electric Vehicle Infrastructure (LEVI) pilot fund is intended to encourage large scale, ambitious and commercially sustainable projects that leverage significant private sector investment to support the rollout of electric vehicle charging infrastructure.

Sunderland secured £493,568 grant funding towards a £822,612.70 project supporting the delivery of 219 fast charging outlets for residents at Riverside Sunderland and on-street locations. This includes 115 wall-mounted charge-point sockets at Riverside Sunderland Multi-Storey Car Park as well as residential on-street charging / an EV Community Hub supporting 104 outlets at 20 locations across the city.

<https://www.gov.uk/government/publications/local-ev-infrastructure-levi-funding-amounts/local-electric-vehicle-infrastructure-levi-funding-allocation-methodology>

Start year of action

2023

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Please select

Estimated emissions reductions (metric tons CO2e)^

<Not Applicable>

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Reduced natural resource depletion
Reduced disruption of energy, transport, water and communications networks
Improved mobility and access
Increased access to energy
Enhanced climate change adaptation

Funding source(s)

National funds and programmes
Public-private partnerships

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

822612.7

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Transportation	Smart public transport
----------------	------------------------

Action description and web link to further information^

Self-driving vehicles will help deliver passengers and cargo in and around Sunderland, after two projects were awarded a share of £84 million in joint government and industry support for self-driving transport technology. £42 million in government funding is being matched by a further £42 million from industry.

Project V-CAL, being led by the North East Automotive Alliance (NEAA), will run up to 4 zero-emission autonomous HGVs around the Nissan Sunderland site, on private roads where the vehicles will navigate traffic lights, roundabouts, and other road users. This is a major step towards deploying the technology on public roads. The work, in partnership with Vantec, Nissan Motor Manufacturing UK (NMMUK), StreetDrone, Nokia, Newcastle University, ANGOKA, and Womble Bond Dickinson (UK) LLP, has been awarded £4 million by government, matched by industry to a total £8 million. The HGVs will operate without any personnel on board but will be monitored by a remote safety driver as backup. This builds on the successful 5GCAL (5G Connected and Automated Logistics) project which piloted the UK's first automated 40 tonne truck, powered by 5G, at Vantec in Sunderland.

The Sunderland Advanced Mobility Shuttle project will trial three self-driving zero emission Aurigo Auto-Shuttles, which will transport passengers on public roads between Sunderland Transport Interchange, the Sunderland Royal Hospital, and the University of Sunderland City Campus. Whilst safety drivers will always be onboard, the project will develop and demonstrate a cyber secure remote supervision protocol, an important step towards commercial deployment. The project has been awarded £3m by the government, matched by industry to a total £6 million and is led by Sunderland City Council in partnership with Aurigo, Stagecoach, ANGOKA Ltd, Newcastle University, Swansea University, and BAI Communications.

<https://www.sunderlandoursmartcity.com/news/uk-government-backing-helps-self-driving-lorries-and-shuttles-rollout-in-sunderland/>

Start year of action

2023

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

None of the above impacts associated with this action have been measured

Estimated emissions reductions (metric tons CO2e)^

<Not Applicable>

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Revenue generation
Reduced costs
Increased energy security
Business/technological innovation
Reduced natural resource depletion
Reduced congestion
Reduced disruption of energy, transport, water and communications networks
Improved mobility and access
Improved road safety
Enhanced climate change adaptation
Improved air quality

Funding source(s)

Jurisdiction's own resources
National funds and programmes
Public-private partnerships

Status of action in the reporting year^

Feasibility finalized, and finance fully secured

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is not included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

84000000

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

No

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Action not related to energy access and/or poverty indicator(s)

Primary emissions sector addressed and action type (selections mandatory)^

Stationary energy	Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings
-------------------	---

Action description and web link to further information[^]

The national government Energy Company Obligation 4 (ECO4) scheme aims to support private sector low-income households with EPC ratings of D-G with retrofit measures.

ECO requires large energy suppliers to provide energy-efficient measures to households to reduce carbon emissions and help those in fuel poverty. ECO4, which runs until March 2026, provides funding for energy-saving improvements such as insulation, heating upgrades, and renewable energy installations. The ECO4 scheme aims to take a 'whole house / fabric-first approach', initially focussing on improving insulation and reducing the need for heating.

ECO4 is complemented by the Great British Insulation Scheme (GBIS – formerly ECO+) which, unlike the ECO4 'whole house' approach, will mostly deliver single insulation measures. ECO targets households with low income and low efficiency. Sunderland City Council recently appointed energy obligated suppliers to help deliver the project.

The ECO4 project will build on the Council's work to deliver ECO3. Between January 2021 and April 2022, the Council assisted 357 properties with heating and insulation measures and attracted nearly £737,000 of utility funding to support energy efficiency improvements to homes across the city, through the ECO3 and ECO-Flex schemes.

<https://eco4.org.uk/>

Start year of action

2023

Year for which mitigation is expected to last

2051 or later

Impact indicators measured[^]

None of the above impacts associated with this action have been measured

Estimated emissions reductions (metric tons CO2e)[^]

<Not Applicable>

Estimated annual energy savings (MWh)[^]

<Not Applicable>

Estimated annual renewable energy generation (MWh)[^]

<Not Applicable>

Co-benefits realized[^]

- Job creation
- Reduced costs
- Increased energy security
- Business/technological innovation
- Reduced natural resource depletion
- Reduced disruption of energy, transport, water and communications networks
- Increased security/protection for poor/vulnerable populations
- Enhanced climate change adaptation
- Improved air quality
- Reduced premature deaths
- Reduced health costs

Funding source(s)

- Jurisdiction's own resources
- National funds and programmes

Status of action in the reporting year[^]

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan[^]

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?[^]

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)[^]

- Energy consumption from renewable energy sources (increase)
- Installed capacity of renewable energy sources within local boundary (increase)
- Total energy generated from renewable energy sources within local boundary (increase)
- Percentage of households within the municipality with access to clean cooking fuels and technologies (increase)
- Percentage of households or population within the city boundary that spending up to X% of income on energy service (decrease)
- Average duration of available electricity (increase)
- Average yearly energy consumption per capita (decrease)

Primary emissions sector addressed and action type (selections mandatory)[^]

Waste	Other, please specify (Smart Bins)
-------	------------------------------------

Action description and web link to further information[^]

Solar-powered 'smart compactor bins' are some of the latest innovations being successfully piloted in Sunderland, thanks to its leading digital expertise and growing smart city infrastructure developed in partnership with BAI Communications.

The trial period, during which a number of smart bins were installed across the city, took place in 2022.

The bins are among the latest innovations being piloted across Sunderland to realise the benefits technology can bring to residents, businesses and visitors, as well as the local authority.

The smart bins contain a solar powered ram that compacts the waste inside, enabling each bin to store up to five times more waste than an equivalent size standard bin. Each smart compactor bin uses a regular household wheelie bin to contain the compacted material inside, making them ideal for the council's teams to empty using existing equipment.

The sensors within each bin constantly report on the quantity of waste inside them, informing the council's environmental services team remotely and instantly how often they are being used, and when the optimum time is to empty them.

This smart technology utilises small sensors and cellular transmission to communicate usage and other useful data – these devices can also be retrofitted into a whole range of equipment to upgrade existing commercial or public bins across the city.

<https://www.sunderlandoursmartcity.com/news/smart-bins-trial/>

Start year of action

2022

Year for which mitigation is expected to last

2051 or later

Impact indicators measured^

Please select

Estimated emissions reductions (metric tons CO2e)^

<Not Applicable>

Estimated annual energy savings (MWh)^

<Not Applicable>

Estimated annual renewable energy generation (MWh)^

<Not Applicable>

Co-benefits realized^

Reduced costs

Increased energy security

Reduced natural resource depletion

Improved education and public awareness

Enhanced climate change adaptation

Improved waste management

Funding source(s)

Jurisdiction's own resources

National funds and programmes

Public-private partnerships

Status of action in the reporting year^

Action in operation (targeted to sector/location)

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is not included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^

Yes

Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^

Energy consumption from renewable energy sources (increase)

Installed capacity of renewable energy sources within local boundary (increase)

Further Information

(10.1) Use this field to provide any additional information or context that you feel is relevant to your jurisdiction's response. Please note that this field is optional and is not scored/assessed.

The commitment to the Low Carbon agenda as a cross cutting theme within the City Plan has meant that work to effectively mitigate and adapt to climate change is becoming more significant in Sunderland. Partner organisations are continuing to develop their own Low Carbon Action Plans in line with the seven strategic priorities of the citywide Low Carbon Framework. To continue its leadership within the city, the Council is has also developed a more robust version of its own Low Carbon Action Plan, which was approved by Cabinet in July 2022 and is available at https://www.mysunderland.co.uk/media/27384/Sunderland-Low-Carbon-Action-Plan-2022/pdf/oce22135_Sunderland_Low_Carbon_Action_Plan_A4_2022.pdf?m=637988302419030000. This has been enabled through greater cross-organisational working since January 2021, through the Council's Carbon Task Group, and an increased understanding of data.

To continue to increase engagement and embed climate action, Sunderland City Council is participating in the UK100 Local Climate Engagement Programme, which is a partnership with Involve, the Democratic Society, Shared Future and Climate Outreach and is working with local authorities to deliver high-quality public engagement projects on climate policy in a way that benefits both them and their local communities. Sunderland's project is focussing on public engagement around sustainability travel behaviours and has provided training to approximately 20 members of staff. Elected members have also been made aware of this initiative to further embed positive climate action engagement.

Sunderland City Council has used the feedback from the 2021 and 2022 CDP disclosures to assess weaker areas (adaptation goals, transport, waste and food) and has included a greater focus on activity in these areas for the 2023 disclosure.

Submit your response

What language are you submitting your response in?

English

Please read and accept our Terms and Conditions

I have read and accept the Terms and Conditions

Please confirm how your response should be handled by CDP.

	Public or non-public submission
I am submitting my response	Publicly (recommended)