ACTION ON CLIMATE CHANGE NORTH TYNESIDE

North Tyneside Draft Climate Adaptation Strategy and Action Plan 2024

North Tyneside Council

Foreword by Cllr Sandra Graham: Cabinet Member for Climate Emergency

In 2019, the Council declared a climate emergency and subsequently published our first Net Zero Action Plan, outlining the steps we will take to make North Tyneside carbon net zero by 2030. It has been five years since we declared the climate emergency and we are getting closer to our 2030 target. With that in mind, we are now revisiting our previous work associated with climate adaptation and have used that experience in the development of this 2024 Strategy. This will compliment our mitigation efforts which have focused on reducing green house gas emissions.

As a result of climate change, we are seeing an increase in extreme weather events, such as storms, flooding, and heatwaves. These changing weather patterns impact the services we deliver and the infrastructure we rely on. More importantly, they can affect our livelihoods and our health and wellbeing.

Climate adaptation is essential because it helps residents, communities, and local businesses cope with the impacts of climate change, which are already occurring and expected to intensify. Therefore, we must be prepared for, and adapt to, extreme weather events to ensure that North Tyneside is resilient to the impacts of a changing climate.

North Tyneside Council has been invited by DEFRA to be one of twenty-eight local authorities in England participating in the 2024 Pilot to Report on Climate Adaptation. Key sectors already reporting on adaptation include energy, water, telecommunications, and transport. Local authorities have a vital role to play in assessing the risks of climate change, and I am proud to say that we have been asked to lead the way in local adaptation reporting.

This is the first iteration of an Adaptation Strategy and Action Plan and has been a learning process. We have identified six key themes which will be integral to increasing our resilience to climate change. We have also set out the actions needed to begin the adaptation journey. Our ambition is to take these principles to a wider stakeholder group and consultation process in 2025, ensuring the entire Borough is prepared to adapt to a changing climate.

Councillor Sandra Graham,
Cabinet Member for Climate Emergency

North Tyneside Draft Climate Adaptation Strategy and Action Plan 2024

Introduction

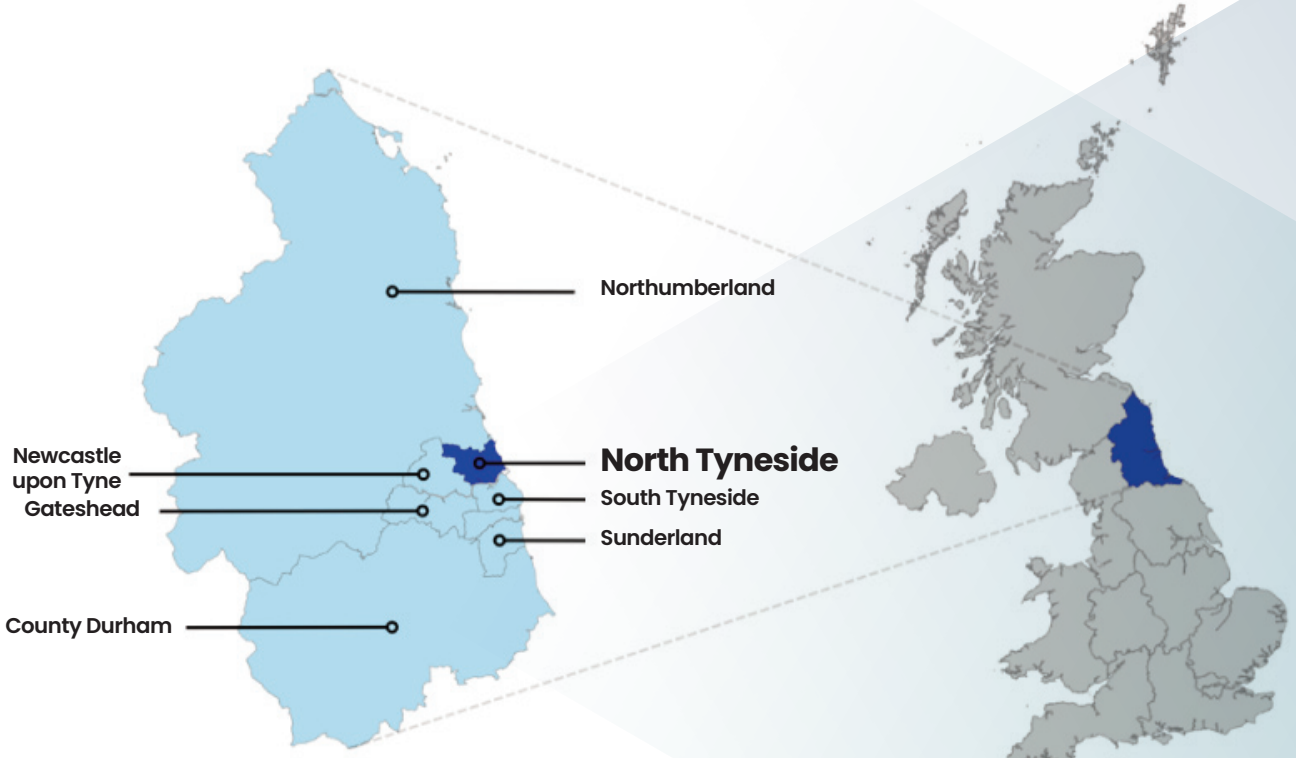
This Strategy and Action Plan focusses on the direct and indirect impacts of a changing climate and adverse weather on key service areas within North Tyneside Council.

These service areas have been highlighted by the Local Partnerships Adaptation Toolkit as needing further investigation of climate risks. Through direct engagement with the relevant teams, the Strategy identifies and assesses the main climate risks beyond what is covered in current Business Continuity Plans, produced by all services.

Additionally, this Strategy has been developed with DEFRA's Local Authority Reporting Pilot in mind and has been produced in collaboration with some organisations who already participate in national Climate Adaptation Reporting. We plan to use this process, along with other localised tools, to inform wider stakeholder engagement on future climate change scenarios in North Tyneside. This will broaden the scope of the strategy in 2025 to encompass climate risks across the whole Borough.

Whilst this Strategy is currently a standalone document, it aligns with the Authority's Carbon Net Zero 2030 Policy.
The Strategy addresses six key themes:

1. Corporate plans, policies and performance
2. Natural capital and green infrastructure
3. Infrastructure and assets
4. Land use planning and the built environment
5. Public health, social care, and community resilience
6. Stakeholder engagement, interdependencies, and cascading risks



North Tyneside
Population: 210,487
Households: 96,232
Enterprises: 5,395
GHG emissions per capita: 4.1 tCO2e

What is climate adaptation?

North Tyneside's climate is changing. The hottest and the wettest years since records began have occurred within the last 10 years. This is a consequence of greenhouse gas emissions in our atmosphere that contribute to global warming.

The Borough is experiencing more severe climate-related events such as storms, high temperatures, and rising sea levels. These events have impacted the lives and livelihoods of residents across North Tyneside. With global temperatures set to increase, we will continue to see wetter winters, hotter and drier summers, and more frequent extreme weather events.

North Tyneside must adapt and build resilience to these current and future impacts, so we can continue to deliver essential services. Climate adaptation involves making purposeful and planned changes to lessen vulnerability and boost resilience to shifting conditions. These adjustments aim to foster a more sustainable and flexible community, capable of thriving amid a changing climate.

Climate Risks to North Tyneside

Changing Weather
- Extreme temperatures, rain and wind

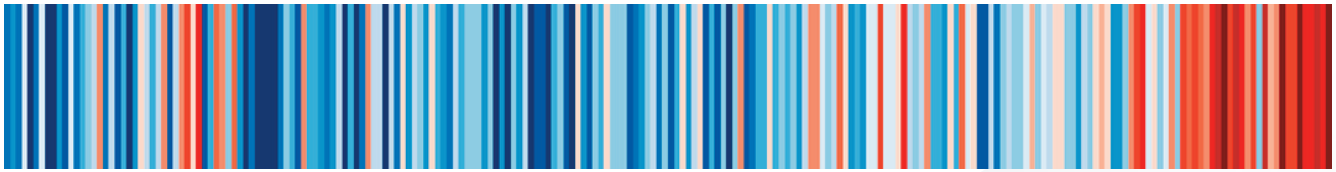
Changing Seasons
- Droughts and fires

Changing Water
- Floods and waves

Changing Earth
- Landslides and subsidence

Changing Biology
- New insects and disease

The 'warming stripe' graphic is a visual representation of the change in temperature in the North East over the past 100+ years. Each stripe represents the average temperature for that year.



Temperature Change in the North East from 1795 to 2022.
Created by Ed Hawkins from the University of Reading.
https://showyourstripes.info/l/europe/unitedkingdom/durham

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Scenarios for future climate change in the North East

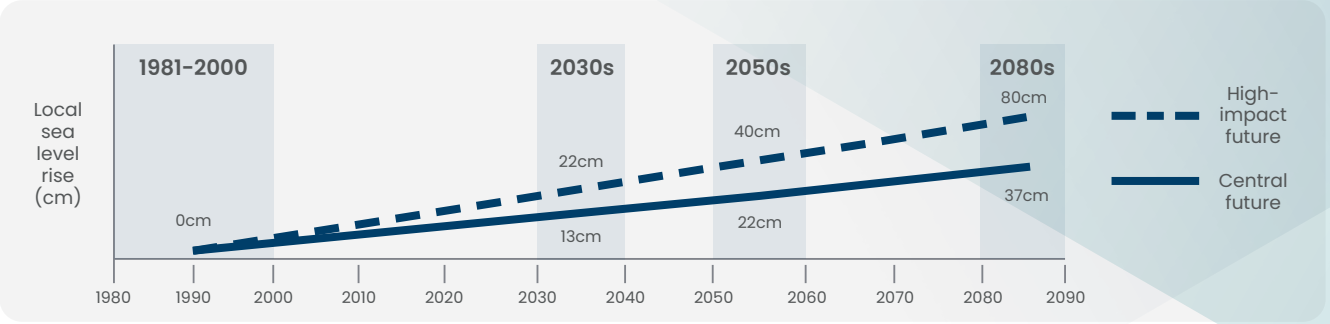
The Met Office has produced climate scenario packs for each local authority area. These provide projections for climate change impacts, such as temperature, rainfall, and sea level rise. The figures shown on the right are taken from the North Tyneside Report. The full Climate Scenario for North Tyneside can be seen here Local Authority Climate Report | North Tyneside | Report Builder for ArcGIS .

The top figure shows projections for North Tyneside in which all modelled scenarios point to hotter, drier summers and warmer, wetter winters. A rise in sea levels can also be expected, as seen in the bottom figure. This highlights the need to prepare for future changing climates, today.

If local, national, and global mitigation measures are effective, a medium emissions scenario of 2°C global warming level could be achieved, meaning the risk of climate change impacts is reduced. However, if action is not taken to reduce carbon emissions, we could expect a high emissions scenario of 4°C which could result in more intense weather events.

		0.6°C GWL Baseline 1981 - 2000	1.0°C GWL Recent Past 2001 - 2020	1.5°C GWL Paris Agreement	2.0°C GWL Guidance: Prepare	4.0°C GWL Guidance: Assess risks
	TEMPERATURE	**°C**	**°C**	**°C change**	**°C change**	**°C change**
	Summer Maximum Temperature	**26.1** 25.8 to 26.3	**27.7** 26.8 to 28.3	**+1.8** +0.7 to +2.6	**+2.5** +1.6 to +3.6	**+5.5** +4.3 to +6.8
	Summer Average Temperature	**14.6** 14.6 to 14.6	**15.5** 15.2 to 15.9	**+1.2** +0.8 to +1.7	**+1.8** +1.2 to +2.2	**+3.8** +3.2 to +4.3
	Winter Average Temperature	**4.3** 4.3 to 4.4	**5.0** 4.7 to 5.6	**+1.0** +0.6 to +1.3	**+1.3** +0.6 to +1.3	**+2.7** +1.8 to +3.1
	Winter Minimum Temperature	**-6.6** -6.8 to -6.4	**-5.1** -6.3 to -4.3	**+2.3** +1.7 to +3.4	**+3.2** +1.7 to +4.3	**+5.0** +4.2 to +6.2
	Annual Average Temperature	**9.2** 9.2 to 9.2	**9.9** 9.8 to -10.1	**+1.0** +0.8 to +31.2	**+1.6** +1.1 to +1.7	**+3.1** +2.7 to +3.4
	PRECIPITATION	**mm/day**	**mm/day**	**% change**	**% change**	**% change**
	Summer Precipitation Rate	**1.7** 1.69 to 1.71	**1.72** 1.59 to 1.92	**+6** -1.4 to +15	**+2** -8 to +11	**-16** -25to 0
	Winter Precipitation Rate	**1.56** 1.55 to 1.57	**1.55** 1.47 to 1.76	**+2** -8 to +7	**0** -14 to+17	**+7** -7 to +21

Projected Changes in Local Climate Table and Local Sea Level Rise Graph, Met Office Climate Report for North Tyneside, 2024



Extreme weather events in the North East

Below are the recent extreme weather events which have impacted the North East. The frequency of these weather events is increasing as a result of climate change, bringing hotter and drier summers, more intense rainfall, stronger winds, and more storms. Climate impacts are increasingly impacting residents, businesses, services, and infrastructure.

Weather Event	Date	Description
Storm Ashley	Oct 24	Strong winds and heavy rain in the North East.
Storm Lilian	Aug 24	Strong winds up to 69mph across Northern England. Widespread power cuts.
Storms Isha & Jocelyn	Jan 24	A 99mph gust of wind is recorded in Northumberland.
Storm Babet	Oct 23	Sections of railings are destroyed at Sunderland's pier by large waves.
Flash Flood	Sep 23	Great North Run participants stranded due to disruption to the transport network.
Storm Otto	Feb 23	Strong winds across the North East.
Low Temperatures	Dec 22	The most significant spells of low temperatures the UK since December 2010.
Unprecedented Heatwave	Jul 22	Met Office issues first red warning for extreme heat. 37oC recorded in Newcastle.
Storms Dudley, Eunice, Franklin	Feb 22	Three storms hit the UK in the space of a week.
Storms Malik & Corrie	Jan 22	Widespread structural damage. The roof of a house is blown off in Gateshead.
Storm Arwen	Nov 21	The most powerful and destructive winter storm of the latest decade.
Storm Christoph	Jan 21	Blizzard conditions across the North East.

Case Study: Storm Arwen

Storm Arwen caused widespread disruption across North Tyneside. Hundreds of homes were left without electricity and many buildings suffered structural damage. Roads were blocked with debris and public transport faced multiple cancellations. The storm left a lasting impact on the local environment, with many trees destroyed. North Tyneside Council and local emergency services reacted quickly to mitigate disruption and set up rest centres for people without power, offering warmth, food, and shelter.

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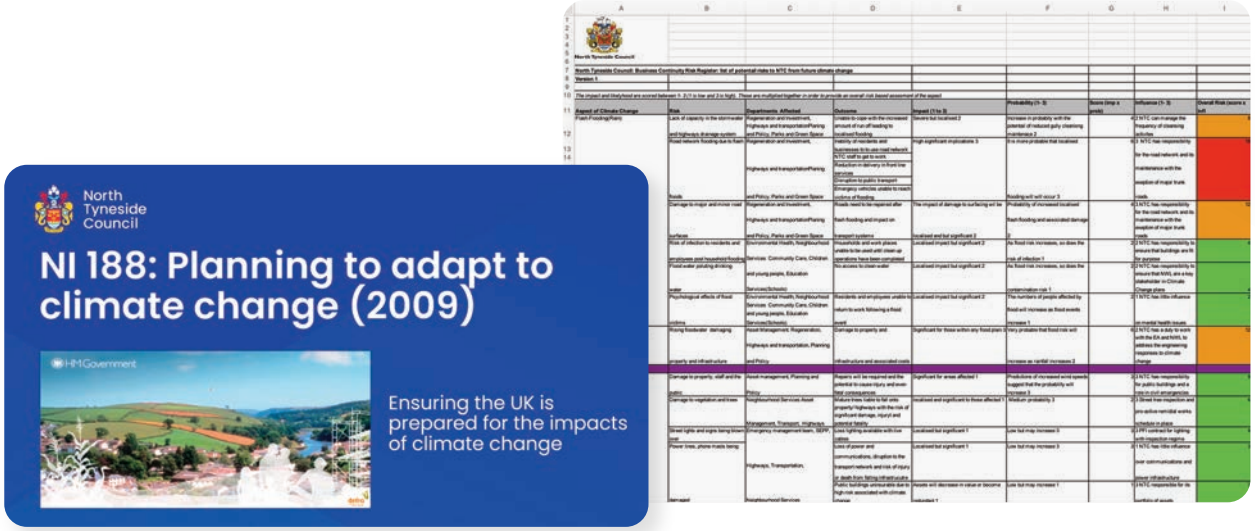
We are not starting from scratch to assess climate risk in North Tyneside

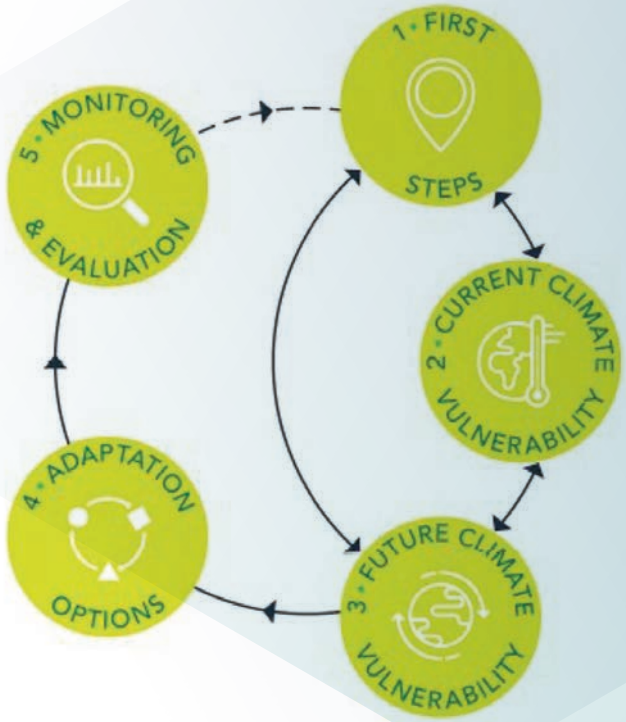
The overall aim of National Indicator (NI) 188 in 2009 was to embed the management of climate risks and opportunities across the Authority and stimulate appropriate adaptive actions where required. This was a 'process based' indicator which provided a valuable learning opportunity - most of the national indicators of the time were 'outcome based'.

The NI188 process highlighted that our understanding of the adaptation agenda in 2009 was not sufficient to specify outcomes. It also demonstrated that climate impacts are localised, and therefore it is impossible to have a generic outcome indicator which applies to all areas of the UK. The associated 2009 Risk Assessment relating to NI188 is seen below.

In 2022, we utilised the Local Partnerships Adaptation Toolkit - a 5-step process which the authority piloted to help identify which key service areas would be priority in the development of a risk revision and action plan focus. This initial work was revisited in early 2024 in the preparation of this Strategy and Action Plan. The Local Partnerships 5-step process can be seen below.



National Indicator 188: North Tyneside Council (2009)



Local Partnerships Climate Adaptation Tool Kit

The Current Policy Landscape

UK Government Policy

Through the legally binding UK Climate Change Act (2008), the UK government is obliged to reduce greenhouse gas emissions and build capacity to adapt and strengthen resilience to climate risks.

The third UK Climate Change Risk Assessment (CCRA) was laid before Parliament in January 2022. The risk assessment includes sixty-one priority risks to the UK to be addressed in adaptation planning across eight core themes.

To meet the challenge of these risks, the National Adaptation Programme (NAP) provides a strategy for climate adaptation. The NAP sets out how risks will be addressed over the following five years. The overarching aim of the NAP is to "shape a society which makes timely far-sighted and well-informed decisions to address the risks and opportunities posed by a changing climate".

Climate adaptation reporting may become mandatory for local authorities. In the Fourth Round of Climate Adaptation Reporting, DEFRA is working with 28 councils, including North Tyneside, to explore the practicalities and appropriateness of adaptation reporting. They will also consider how guidance can be built upon to support local approaches to climate change adaptation.

The DEFRA Adaptation Reporting Pilot Case Study

DEFRA have invited North Tyneside Council to be one of twenty-eight local authorities in England to participate in the 2024 Pilot to Report on Climate Adaptation. In previous iterations, utility providers, road and rail companies, harbour authorities, and more have reported on their adaptation activities.

Local authorities have now been asked to assess their climate risks and produce an adaptation action plan. It is anticipated that, following the results of the pilot, reporting will be potentially required as a statutory obligation. The delivery of the DEFRA Pilot is integrated into the corporate risk management process.

The DEFRA pilot will conclude in December 2024 with further assessment of the pilot outputs and outcomes being planned for April 2025.

This has generated additional emphasis on the Net Zero agenda, which already sits on the Authority's corporate risk register. The pilot project has been allocated to an operational risk for the completion of its requirements.

Local Policy in North Tyneside

The North Tyneside Net Zero 2030 Action Plan is a rolling programme of projects which are identified by the Authority and its stakeholders. Whilst some projects have a defined life cycle, others do not and will be managed on an on-going basis. There is no set standard for Local Authorities and the Net Zero challenge, however North Tyneside Council has adopted a 'no regrets' approach in setting out its ambition and programme of actions.

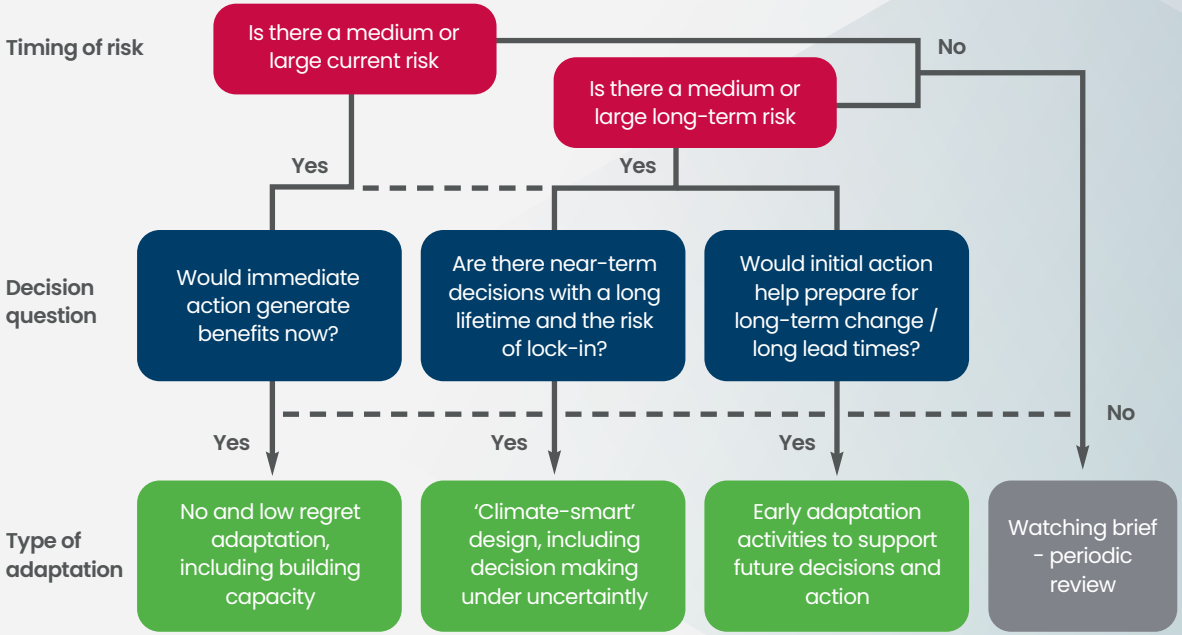
The Authority is clear that to meet its climate ambitions, adaptation to climate change must be an inherent and core part of the Action Plan. An integrated approach of mitigation and adaptation is further reinforced with the Authority's inclusion in the DEFRA pilot for local authorities in line with the 4th Adaption Reporting process.

Adapting to current and predicted changes to our climate, both at the national and local levels, is a vital necessity to protect the economy and protect society. All the current science and evidence suggests that climate change is leading to increasing frequency of severe weather, be that high rainfall and flooding or heatwaves. North Tyneside is as vulnerable to these types of events as the rest of the North East of England and therefore must embed adaptation into local policy.

Why is adaptation important for North Tyneside?

Adaptation aligns with North Tyneside Council's key priority of a green, secure borough as set out in Our North Tyneside Plan.
An effective plan is needed to lessen the negative effects, make the most of any opportunities, and address the following priorities:

- **Strategic Objectives**: Ensuring projects, plans, and processes address resilience to climate change and strengthen the ability to achieve long-term goals.
- **Service Impact Reduction:** Adaptation allows assets and activities to function amid changing climates, reducing impact on service delivery.
- **Financial Savings**: Early investment in adaptation delivers strong value for money, with most measures delivering £2 to £10 of net economic benefits for every £1 spent. It also helps local authorities avoid significant short-term costs incurred from extreme weather events.
- **Co-Benefits:** Well-planned adaptation can deliver wider benefits such as improved health and wellbeing, increased property values, enhanced skills and employment, emission reduction, and support for biodiversity.
- **Statutory Requirements:** Adaptation is a statutory requirement in some local government areas, including planning, flood risk management, public health, and Environmental Impact Assessment.



In generating this strategy, the Authority has employed the above approach, recommended by DEFRA's Green Book guidance on 'Accounting for the effects of climate change'. It is anticipated that future iterations and plans will refine this approach as we learn via implementation.

Key theme 1: Corporate plans, policies and performance

Effective climate adaptation requires our decision-makers to understand climate impacts. Connecting these impacts to the Authority's strategic priorities ensures the right resources —financial, political, and human—are in place to address them. With the rate of climate change set to intensify over the coming decade, the authority needs to plan for adaptation now. At North Tyneside Council we have a dedicated Environmental Sustainability team who work on our ambitious Carbon Net Zero 2030 Action Plan, as well as leading on many other strategic and operational programmes of work.
The overall governance of the Climate Emergency is split between the Authority's Carbon Net Zero 2030 Board (Internal) and the Borough-wide Climate Emergency Board (External).

The Carbon Net Zero 2030 Board: The Authority's internal governance structure serves to oversee and steer the reduction of its own operational carbon emissions and strategic Borough-wide emissions, where possible.
This Board is made up of 12 specific workstreams, led by senior managers and officers, and is jointly chaired by the Cabinet Member for the Climate Emergency and the Director of Environment. There is a specific Workstream which is responsible for Adaptation, Insetting, and Nature Based Solutions.

The Borough Climate Board: The Board was set up by North Tyneside Council in 2022 to address the urgent need for action in the fight against climate change. The Board is made up of public sector organisations and commercial and industrial businesses, who have embarked on a pathway to reduce carbon emissions and agreed to work collaboratively to support our Net Zero 2030 Action Plan. The Board's work programme encompasses the topic of adaptation and has resulted in the production of an Adaptation Toolkit for local businesses.

Key theme 2: Natural capital and green infrastructure

Natural capital encompasses the greener, biodiverse margins outside of our built environment, and climate change poses a significant threat to these. Our actions that both support biodiversity and reduce the impacts of climate change on people are examples of 'Nature-based Solutions'.

Local species and habitats are susceptible to climate pressures such as strong winds, wildfire or drought, which are likely to become more frequent with climate change. If the Authority and its communities can develop and enhance habitat connectivity and general conservation, this can positively support adaptation measures and reduce the impacts of climate change.

Managing our local environment with climate change in mind can help to protect people. For example, our local woodland planting and wetland creation projects can slow and absorb excess surface water, reducing the risk of flooding. In a similar context, the low sea cliffs along the northern aspects of our coastline work alongside erosion protection measures to buffer the impacts of storm surges. Meanwhile, our local parks and blue spaces, such as ponds and water ways, can help lower temperatures in hot weather.

The Newcastle and North Tyneside Biodiversity Action Plan (BAP) highlights the priority habitats and species in the Newcastle and North Tyneside area considered to be under threat. The plans were developed by a steering group of local experts to reflect the current concerns of different wildlife organisations. This partnership will continue to oversee the ongoing development and implementation of this BAP.
In doing so, there is a direct opportunity to contribute to the mitigation of, and adaptation to, a changing climate.

Case Study: North East Community Forest

North Tyneside Council is a proud member of the North East Community Forest - a 30 year, multi-million-pound project that will see tens of thousands of trees planted across 6,000 hectares.

Supported by Defra's Nature for Climate Fund, North Tyneside Council has planted over 13,000 trees as part of the North East Community Forest.

This is supported by the Authority's Tree Planting Strategy, which highlights the importance of planting trees to increase resilience to climate change.

The planting of these trees will also strengthen existing tree lines to reduce the impact of major roads and remove carbon emissions from the atmosphere. Additional woodland will also increase biodiversity, reduce the risk of flooding, and enhance the aesthetic nature of the area.

Key theme 3: Infrastructure and assets

Infrastructure is essential to North Tyneside Council's broader objectives, and its failure can lead to extensive economic, social, and environmental disruptions. Local authorities, responsible for coordinating development in their areas, play a crucial role in the delivery of key infrastructure components like energy, water, transport, and communications.

The Authority and its partners have Civil Contingency plans in place to react/respond to events as they happen, working collaboratively with the whole range of civil agencies. Reviewing highway maintenance approaches and the dependency of service delivery on critical infrastructure enhances climate resilience. Disaster preparedness protocols ensure IT and communications teams can react quickly to climate events, protecting the network and mitigating disruption. Meanwhile, a comprehensive asset register supports recovery after extreme weather events.

Should a major flooding incident occur, emergency planning procedures are in place and staff are trained to respond, equipped with knowledge of the operational procedures of flood areas and the communities most at risk. The response to major incidents can include opening rest centres to accept those displaced by flooding and assisting with the recovery phase.

Engaging with providers through the Adaptation Reporting Power process has helped us further understand climate impacts on local infrastructure. Through stakeholder collaboration, the Authority has identified the cascading risks associated with the resilience of our infrastructure and assets.

Case Study: Local Resilience Forum

The Authority is a member of the Northumbria Local Resilience Forum (LRF), which coordinates organisations involved with emergency response across Northumberland and Tyne and Wear.

The LRF facilitates co-operation between local responder organisations, such as the police and local authorities. This enables cross-sector collaboration on flood risks, adaptation measures, and mitigation opportunities.

A Flood Resilient Community Engagement Team has been established to help communities understand their flood risk and learn how they can better prepare for and recover from flooding.

Additionally, applications for new developments in flood areas are carefully scrutinised to ensure that proposals are safe and in line with flood risk supplementary planning guidance.

Key theme 4: Land use planning and the built environment

Effective land use in the Borough involves planning and using spaces to create appealing local environments. Failing to adapt the built environment can harm the long-term viability of our limited space for living, working, and doing business. As the Authority is responsible for planning, the consideration of climate risks in new developments and retrofitting existing buildings is essential.

The North Tyneside Local Plan 2017-2032 is the current development plan for the Borough, setting out policies for the control of development. Climate change mitigation and adaptation is addressed as a key strategic priority and incorporated throughout.

The plan's vision for 2032 seeks to make North Tyneside a place that is "resilient to climate change". Meanwhile, Objective 1 sets out to "Ensure a sustainable future for North Tyneside with communities and infrastructure that are well placed to mitigate climate change".

North Tyneside Council has committed to developing and promoting approaches which adapt to, and mitigate the impact of, climate change. This includes managing flood risks, reducing GHG emissions, promoting renewable energy, and championing developments which seek to minimise energy and resource consumption. Potential future reviews of the Local Plan can provide an opportunity to further strengthen local policy thereby improving the Borough's resilience to climate change

Case Study: Smith's Dock, North Shields

North Tyneside Council applies a range of design requirements to developments to mitigate the impact of climate change. This includes ensuring flood risk is reduced.

The Smith's Dock development is located at the Fish Quay in North Shields. As the development is immediately adjacent to the River Tyne, the proposals ensured that the development would be adapted to have a high grade of resilience and avoid flood risk for residents and property.

In terms of the adaptations made, the site has been reprofiled to accommodate a 1 in 200-year storm and the projected climate change water level. Finished floor levels are set at a height of 5.5m above ordnance datum (AOD), providing a safety margin of 6m above the 1 in 200-year flood level.

Key theme 5: Public health, social care, and community resilience

Climate change can lead to health risks and exacerbate pre-existing conditions. However, not everyone will feel the effects of climate change the same way, so the Authority considers how vulnerable people might be more at risk. Factors like age, income, and social involvement affect how communities deal with climate problems. Public health initiatives can address the health impacts of climate-related events, integrating potential impacts into assessments and using local data for targeted interventions.

By using the principles of a just transition in an adaptation context, we can help our residents get a fair response to climate challenges. Climate justice promotes fairness in tackling climate risks by involving affected communities, targeting vulnerable areas in flood management, and ensuring climate-health inequalities are addressed.

Climate hazards can also impact the delivery of health and social care services, affecting premises, staff, and infrastructure. Effective planning by operational services can mitigate health risks and improve resilience to extreme weather events via vulnerability assessments and disaster preparedness plans. In doing so, long-term financial costs can be reduced and disruptions to essential services can be prevented.

Home care services are a key aspect delivered by the Authority. People seeking help to meet care needs at home can engage with the Authority's Safe and Healthy Homes team to ensure energy efficiency and insulation measures are undertaken where appropriate.

Case Study: Climate Vulnerability Mapping

The Authority has begun to map vulnerabilities to climate change across the Borough. Using census data and a range of evidence-based indicators, a Climate Vulnerability Index is being created to better inform a just transition towards building climate resilience.

The Index reveals the communities who are disproportionately affected by climate change and can inform climate interventions which target those most vulnerable to extreme weather events.

This can also support decision-making, particularly for policymakers and planners who work on infrastructure development, disaster preparedness, and resource management.

Understanding vulnerability can help develop strategies which reduce the risks associated with climate change.

Key theme 6: Stakeholder engagement, interdependencies, and cascading risks

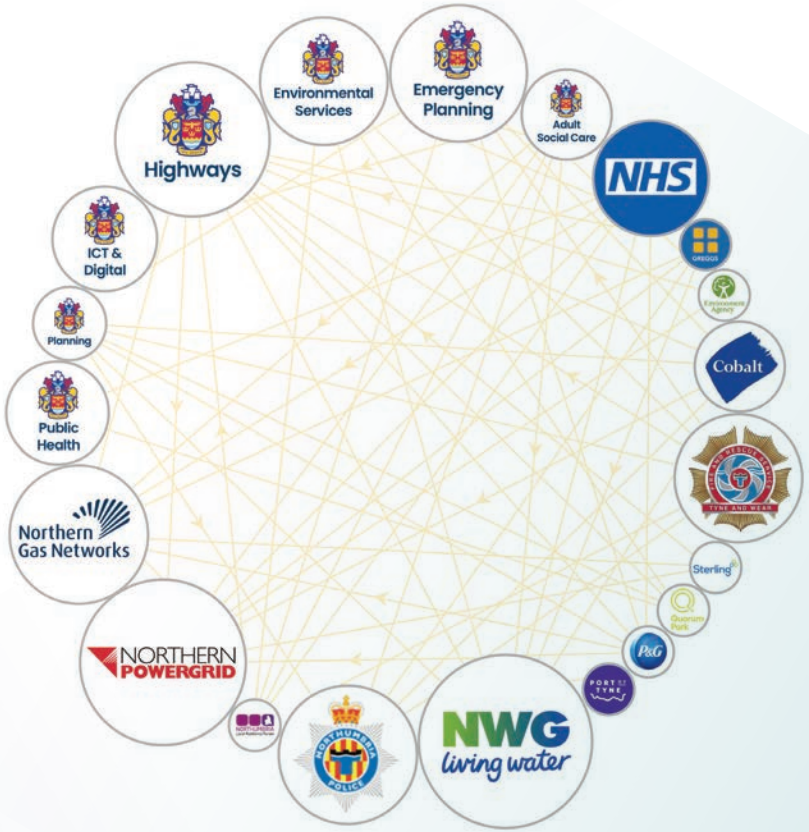
Interdependencies refer to the interconnectedness between various systems, sectors, and stakeholders. These systems might include infrastructure (e.g., energy, water, transportation), emergency services, telecommunications, and health systems. When one system is impacted by climate change, it can influence others, often in unexpected ways.

Cascading risks occur when a climate impact triggers a series of secondary effects, leading to a domino effect that exacerbates the overall impact. These risks are often a result of interdependencies. For example, a severe storm might cause flooding, which damages infrastructure such as roads and bridges. This can obstruct transportation networks, delaying emergency response and impeding supply chains, leading to prolonged economic and social disruptions.

Addressing the interdependencies and cascading risks in North Tyneside requires cross-sector collaboration. The Authority's adaptation strategy involves stakeholders from multiple sectors to ensure that interdependencies are recognised and managed.

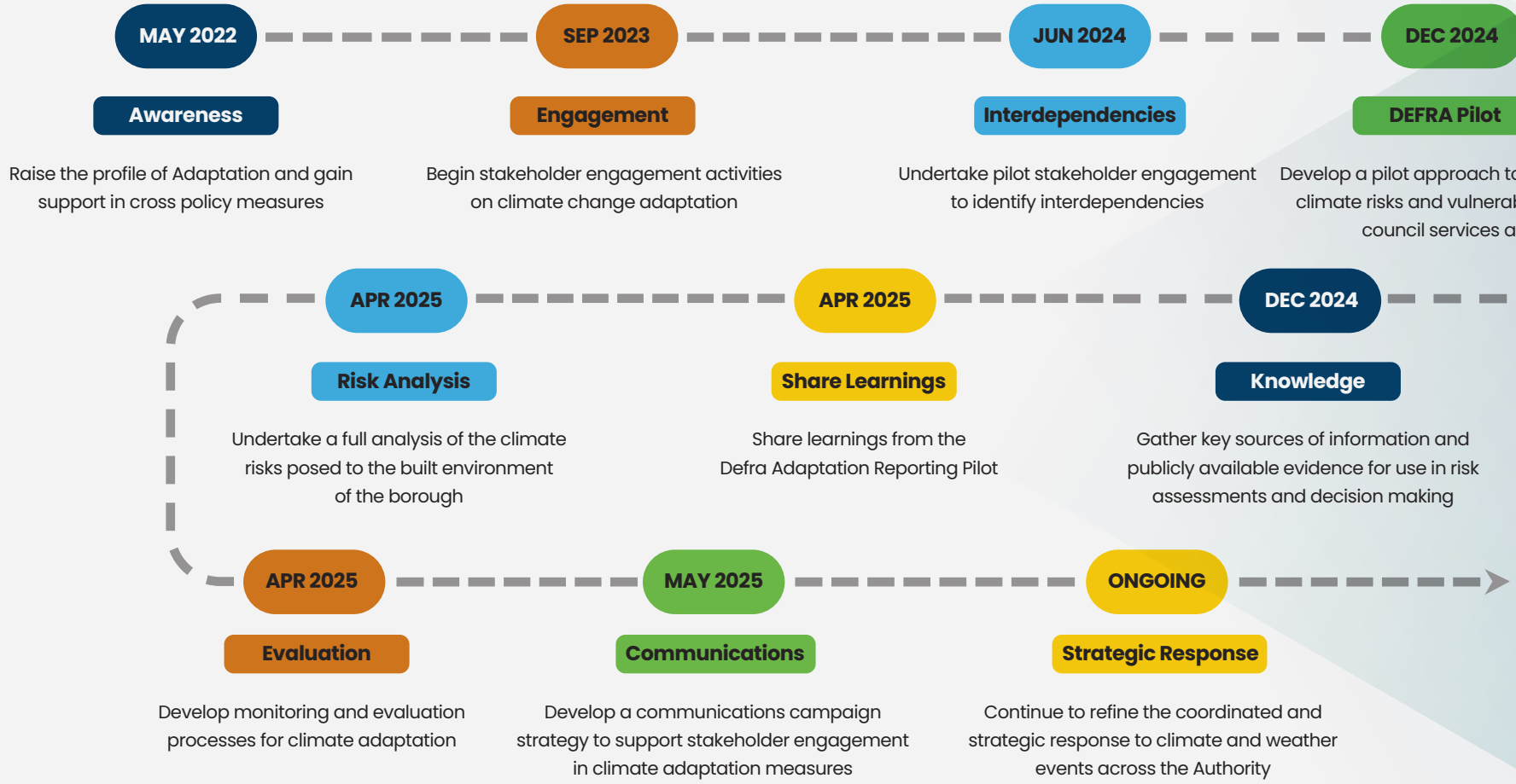
North Tyneside Council held a Climate Adaptation: Call for Evidence event with local stakeholders. The featured workshop was dedicated to identifying interdependencies between local organisations. Attendees were asked to identify the other organisations they may be dependent on during extreme weather events.

The workshop produced a map of the interdependencies between large organisations in North Tyneside, which can be used to inform adaptation planning. In the figure adjacent, the size of the logo reflects the number of dependent organisations.



Interdependencies in the context of extreme weather. Logo size is relevant to number of dependent organisations.

Adaptation Plan Timeline



North Tyneside Adaptation Action Plan

NTC Climate Adaptation Action Plan and Strategic Route Map 2022 – 2030					
No	**Action**	**Description**	**Key Performance Indicators**	**Partners**	**Timescale**
1	Raise the profile of adaptation and gain support in cross policy measures	Presentation of the LGA Adaptation 5 Step Approach to assessing key climate risks to the Carbon Net Zero 2030 Board. Work with Cabinet Member, the NTSP area partnership, and local partners to mainstream adaptation across all policy areas. Help build capacity and understanding of local impacts of global climate change.	Approval of a pilot across key Authority services.	Internal Board Workstream leads	May 2022 and ongoing
2	Begin stakeholder engagement activities on climate change adaptation issues, policies, and projects.	Develop a simple toolkit for businesses and the Community and Voluntary Sector and undertake a workshop approach to highlight the rationale for Adaptation.	Number of workshops/delegates. Toolkit produced and disseminated.	Borough Climate Board	September 2023 and ongoing
3	Undertake initial stakeholder engagement to identify interdependencies	Develop and deliver a workshop - based approach to provide the basis for mapping local and regional interdependencies.	Host a stakeholder event, including a delegate workshop. Produce an interdependency mapping report.	External and internal borough stakeholders	June 2024

North Tyneside Adaptation Action Plan

NTC Climate Adaptation Action Plan and Strategic Route Map 2022 – 2030					
No	**Action**	**Description**	**Key Performance Indicators**	**Partners**	**Timescale**
4	Develop a refined pilot approach to adaptation reporting, identifying local climate risks and vulnerabilities in key council service areas	North Tyneside Council has been invited to participate in Defra's pilot of Local Authority Adaptation Reporting. Utilise the initial trial of the Local Partnerships 5 Step process to refine the work with key service areas of the Authority.	Prepare and publish an adaptation risk register for key service areas, including climate risks and vulnerabilities.	Key Authority service areas	December 2024
5	Create an adaptation information portal on the Council website	Gather key sources of information and publicly available evidence for use in risk assessments and decision making. An adaptation portal will create a shared resource for policy makers, communities, and businesses in the Borough to integrate adaptation into their climate plans.	Uploaded information on the Authority website.	Key Authority service areas Statutory organisations External stakeholders	December 2024 and updated annually
6	Share learnings from the Defra Adaptation Reporting Pilot	North Tyneside Council has been invited to participate in Defra's pilot of Local Authority Adaptation Reporting. Share our learnings on adaptation reporting with the region's local authorities, including the North East Combined Authority.	Hold a regional event to present findings.	Key Authority service areas External borough stakeholders	April 2025

North Tyneside Adaptation Action Plan

NTC Climate Adaptation Action Plan and Strategic Route Map 2022 – 2030					
No	**Action**	**Description**	**Key Performance Indicators**	**Partners**	**Timescale**
7	Undertake a borough-wide analysis of the risks posed to our built environment from the impacts of climate change.	Work with key stakeholders and use existing data to identify gaps in uncertainties regarding extreme weather impacts.	Refined borough-wide climate risk assessment.	Internal and external stakeholders	April 2025
8	Develop monitoring and evaluation processes, and undertake further research to inform decision-making and policy development	Continue to review climate risks and vulnerabilities for the borough and the Authority's key service areas.	Annual review.	Statutory organisations	April 2025
9	Undertake a targeted communications campaign on adaptation risk and adaptation options.	Integrate climate adaptation messages into the existing Net Zero communication and marketing campaigns.	Capacity building across the borough to ensure wider understanding of the purpose and importance of climate adaptation, including understanding of capabilities, risks, and solutions.	Communications and Marketing Team	May 2025
10	Continue to refine the coordinated and strategic response to climate and weather events across the Authority.	Work with blue light services and the LRF to improve systems for reporting flooding and coordinating responses to extreme weather events.	Number of coordinated responses to extreme weather events and recovery.	Borough Board Members All stakeholder groups	Ongoing