



Northumberland Strategic Partnership

The Heat Is On

The Strategic Framework for Climate Change Planning in Northumberland

Delivery Plan



Introduction

This delivery plan takes forward the commitment made by Northumberland Strategic Partnership in 'The Heat Is On: The Strategic Framework For Climate Change Planning in Northumberland' (2009) to put activity on climate change at the centre of our service delivery in Northumberland. It recognises the role that members of Northumberland Strategic Partnership can play in demonstrating leadership on climate change within different sectors, the important need to adapt Northumberland's economy to inevitable changes in climate, and the contribution that local activity can make to achieving national ambitions for carbon reduction.

Northumberland has a wide range of grassroots activity on climate change and many partner organisations also have their own climate change activity. This delivery plan recognises the need to support and compliment this existing activity in very practical ways:

- Addressing activity that needs to happen at a larger scale, often bringing other organisations into dialogue with each other to achieve co-ordinated activity.
- Focussing on commissioning and sharing necessary intelligence.
- Focussing on identifying barriers to activity and negotiating their removal with relevant strategic players.
- Concentrating on influencing the regulatory mechanisms that structure how we live our lives to provide a context in which local action is enabled.

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Relationship with other plans

Northumberland County Council has committed on behalf of the County to achieving a 20.5% reduction in carbon dioxide emissions based on the 2005 baseline under the Covenant of Mayors declaration. This broadly equates to a 34% reduction on the 1990 baseline and is therefore effectively a County level delivery of the national targets. The outline of how we will achieve this target is contained within the formal 'Sustainable Energy Action Plan' (SEAP) through which we have to report our Covenant of Mayors obligations. In Northumberland the SEAP has been incorporated within Northumberland County Council's Environmental Sustainability Programme.

There is a close relationship between The Heat Is On and the Environmental Sustainability Programme, with the latter providing the internal drive and structure to take forward the Council's contribution to The Heat Is On.

The Heat Is On and the actions detailed below take a broader look at how the ambitions of individual organisations are working together to ensure a rounded approach to addressing climate change in Northumberland, to create a resilient and sustainable place to live, work and visit.

The actions detailed below form a portfolio that will work to enable others to deliver against climate change. By offering a strong and cohesive voice for Northumberland and by challenging each other to achieve more, this package of activity will contribute to a significant step change in activity, which would not possible by any single organisation in isolation.



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In leading the vision for what we want to achieve on climate change in Northumberland, 'The Heat Is On' brings together a holistic consideration of activity on:

- mitigation (reducing carbon and other greenhouse gas emissions)
- adaptation (the need to make ourselves resilient to the effects of climatic changes we are already committed to experience) and
- making the most of any economic opportunities that the changes might present.

This is important because many of the initiatives and performance drivers which we have to respond to as individuals focus on only a subset of this overall picture. We need to maintain an oversight of how all these come together in the place that is Northumberland and, as many of the activities identified in the plan demonstrate, the most exciting opportunities often address mitigation, adaptation and economic opportunity together.

Timeframe

The delivery plan timeframe is to 2020 to coincide with various national and European commitment periods. Activity has been grouped into 1-2 year, 3-5 year and 5-10 year intervals for delivery. It is expected that the plan will remain live during this period and act as the focus for further activity as it is identified.



Resources

The delivery plan identifies a portfolio of activity based on local need and local policy. It has been designed to provide a basket of ambitions from which relevant subsets of activity may be progressed as and when funding allows.

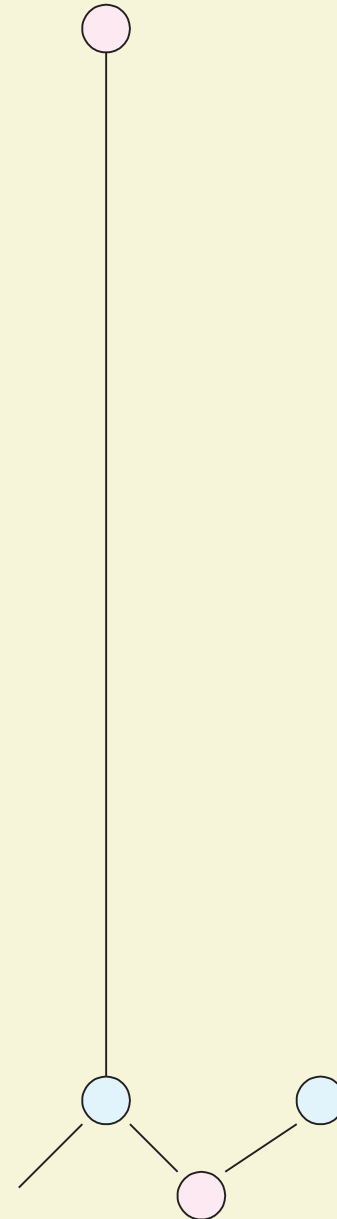
There are a number of mechanisms identified in the short term to take activity forwards but it is impossible to forecast longer-term resources and therefore success will depend on the identification of suitable mechanisms in the future.

Rather than our ambition being limited by current shortages of resources, this approach will ensure Northumberland is in the best position to respond to sudden funding opportunities. This has been demonstrated by the ability for us to respond to the Local Carbon Framework Programme at short notice. It also ensures that activity is focussed strategically on local needs and not reactively driven by changing initiatives.

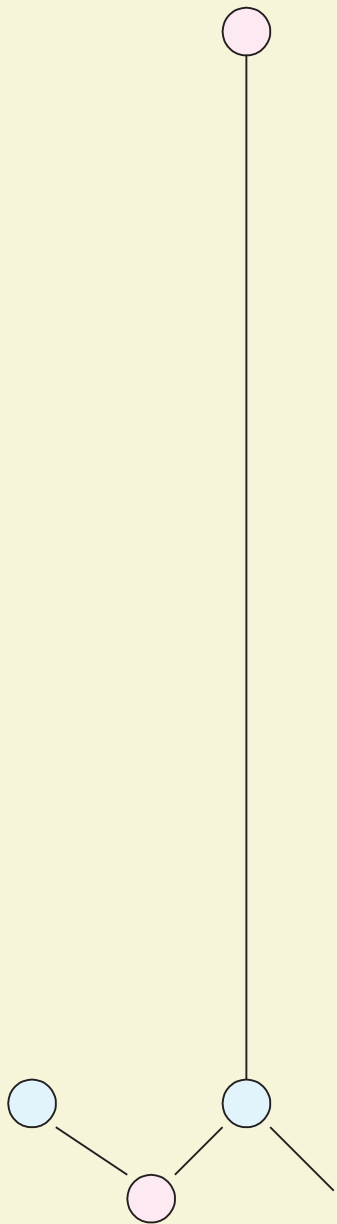
Governance

The delivery plan has been broken down into a number of discrete work packages, which reflect the particular interventions that are required at this spatial scale. A summary of these and the main ambitions that each package covers is presented below.

Accountability and oversight for delivery will be provided by the Northumberland Strategic Partnership Leadership Forum supported by Northumberland County Council but the responsibility for delivery is shared by the partners identified at action level.



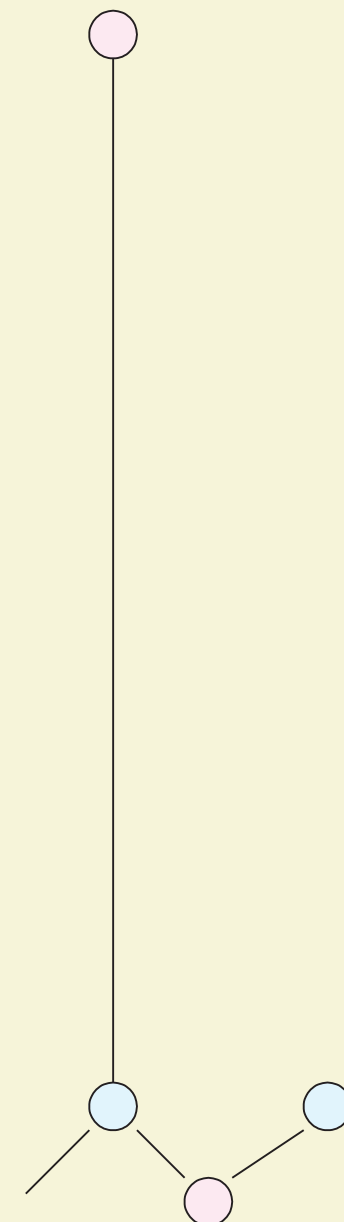
Work Package	Ambitions	Mitigation	Adaptation	Economic Opportunity
1. Regulatory Change and Resilience	Ambition 1 - Northumberland's Spatial Planning Framework is progressively driving both adaptation to, and mitigation of climate change.	√	√	√
	Ambition 2 – Best use is being made of existing regulatory and licensing frameworks to achieve increased resilience and reduced carbon emissions at a local level.	√	√	
	Ambition 3 – Northumberland's emergency planning regulations and incident recovery processes mean we are able to respond to extreme weather events in a co-ordinated and efficient manner and those most at risk are identified and protected both in the case of immediate hazards and for future risk.		√	
	Ambition 4 – Land is managed to maximise the landscape's ability to resist adverse weather conditions with its capability to contribute to a low carbon society. This will balance carbon retention/capture, alleviation of flood risk, reduce risk of erosion, provision of carbon neutral fuels, generation of energy, and spatial interconnections of habitat allowing species migration as climatic change impacts habitat.	√	√	√
2. Infrastructure	Ambition 5 – Northumberland's existing transport infrastructure is resilient to the effects of both extreme and incremental weather changes.		√	
	Ambition 6 – Northumberland is a low carbon society in which low carbon transport options ensure services are accessible to all despite our rural challenges. This includes a reduced need to travel, reformed service delivery, strong public transport and good active travel infrastructure.	√	√	√
	Ambition 7 – Northumberland's telecommunications infrastructure is resilient to the effects of both extreme and incremental weather changes and meets the requirements of remote communities and increased remote working.	√	√	√
	Ambition 8 – Northumberland's utility infrastructure should be made resilient to both extreme and incremental weather changes and be prepared to cater for the projected changes in demand.	√	√	
	Ambition 9 – Northumberland produces little residual waste and has a robust infrastructure for recycling 50% of all recyclable materials. Energy from residual waste is recovered.	√		√
3. Community Support and Capacity Building	Ambition 10 – Communities are well supported by informed policy makers, support workers and service providers to develop the necessary skills to take action. There is a good understanding of what drives community responses, what works, how to overcome challenges, and staff have the skills and commitment to facilitate community leadership.	√	√	
	Ambition 11 – Tangible support is provided to Northumberland's communities to ensure they are well adapted to the forecast impacts and information is available on how individuals can best adapt their homes and community facilities to be resilient.		√	
	Ambition 12 – Tangible support should be provided to support and assist Northumberland's community grassroots initiatives to reduce their carbon emissions, such that communities can access information and tools to help them reduce their emissions and can share experience and learn from each other.	√		√
	Ambition 13 – There are a sufficient range of financial mechanisms available that there is ease and equality of access to capital to enable community activity.	√	√	√



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4. Developing and Applying forerunning research	Ambition 14 – There is a shared understanding about the predicted impacts of climate change at a detailed local level. We understand the likely risks to different human populations in different localities across Northumberland, this understanding is central to health care provision and emergency response procedures across the County. We also understand changes to the distribution of natural populations and habitats and are trialling projects to ensure species are able to adapt.		√	
	Ambition 15 – Northumberland has a rich shared data repository for monitoring and informing activity.	√	√	
	Ambition 16 – Social science research into communication and behaviour change will be applied to increase the successfulness of methods of public engagement.	√	√	
5. Increasing engagement and creating a low carbon culture	Ambition 17 – Creative opportunities for engaging audiences in the science of climate change will offer a range of audiences a better understanding and engagement.	√	√	√
	Ambition 18 – Northumberland will have a low carbon culture with all major organisations offering strong leadership. Each partner organisation will encourage carbon reduction activity amongst our employees.	√	√	√
6. Incentivising behaviour change	Ambition 19 – Low carbon transport choices are easy and attractive for both individuals and organisations and where possible it is financially advantageous to implement low carbon decisions.	√	√	
	Ambition 20 – Low carbon household choices on energy, waste and purchasing are easy and attractive and where possible it is financially advantageous to implement low carbon decisions.	√	√	
	Ambition 21 – Low carbon and increase resilience choices by businesses and employers are easy and attractive and where possible it is financially advantageous to implement low carbon decisions.	√		√
	Ambition 22 - It is easy, attractive and financially advantageous for land managers and farmers to proactively manage land for carbon benefit, climate change adaptation services and to provide receiving habitats for migrating habitats and species displaced through climate change			
7. Creating a Thriving Economy	Ambition 23 – Northumberland’s economy is based on equality of prosperity and sustainable business activity.	√		√
	Ambition 24 – Existing and new businesses sites are resilient to both incremental climate impacts and catastrophic events. Northumberland’s business sector is well informed about the need and means to adapt to changing climate and how to reduce their operation or procured carbon emissions. The bridge between public sector drive on climate change and local business response is strengthened.	√	√	√
	Ambition 25 – Existing local businesses can realise opportunities to diversify, expand and develop a competitive edge in the emerging low carbon economy.		√	√
	Ambition 26 – the development of a low carbon economy will provide new skills development and new business start up and employment opportunities. Our local workforce is skilled to benefit from future economic opportunities.	√		√
	Ambition 27 – The low carbon economy and the forecast changes in climate offers opportunities to attract inward investment of new businesses to strengthen existing clusters.			√
8. Transformational Projects	Ambition 28 - Northumberland has a number of large-scale schemes that achieve significant carbon reduction and demonstrate what is possible to achieve.	√	√	√

A list of abbreviations relevant to the following ambitions can be found on page 51.



Work Package 1: Regulatory Change and Emergency Planning

Work Package 1 focuses on ensuring that the regulatory mechanisms operating across Northumberland are shaping a county that is well adapted to the effects of changing climate, is progressively reducing emissions of greenhouse gases and supporting the move towards a low carbon economy.

Regulations can either proactively prescribe or passively allow (by not obstructing) certain activity. As a county we need to ensure that reduction of emissions and increased resilience to both incremental and catastrophic weather events are mainstreamed within the policy and regulatory frameworks. A particular emphasis in the short to medium term will be the Local Development Framework and Local Transport Plans which will be supported through the suite of supporting policy documents with effective translation through to planning and building control. This will contribute to the ambition of this plan that Northumberland's new built environment will be carbon neutral by 2020 and significant progress will have been made on retrofitting existing building fabric and ensuring buildings are resilient to both extreme and incremental weather changes.

Ambition 1 - Northumberland's Spatial Planning Framework is progressively driving both adaptation to, and mitigation of climate change.

Other sources of regulation such as water, waste, fire and vehicle regulations are also important. Many of these are set at a national or European scale and so ongoing reflection of how these deliver against the climate change agenda at the local level will be undertaken, and where the need for change is identified, representations will be made to national or European bodies.

Emergency Planning has been included within this package because of the emergency powers of regulation that can be evoked.

Finally an additional element of regulatory change is social regulation – how we regulate each other as a society by accepted norms. This is likely to change significantly as we move towards a low carbon society. The process by which we might encourage this is better considered under WP 5: Increasing Engagement and Developing a Low Carbon Culture.

1	Action Detail	Lead Agency	Support Agencies	Time-frame	A	M	E	Progress Update
1.1	Mitigation of and adaptation to climate change will form a central objective of the NCC and NNPA Local Development Frameworks and will be a central consideration in the development of Northumberland County Council's Core Strategy. This should include exploring the use of the Carbon Accord (rather than a Merton style renewable energy regulation) on all new developments to ensure carbon performance is maximised.	NCC Planning Strategy NNPA Planning		1-2	√	√	√	Funding has been secured through the DECC LCF to support external consultancy on this.

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<p>1.2</p>	<p>Consideration in 1.1 will then inform specific policy and regulatory documentation and be subject to a sustainability appraisal. The first stage will be to establish an appropriate evidence base to inform the development of the Core Strategy at the following key stages:</p> <ul style="list-style-type: none"> • Development of issues and options • Evaluation of preferred options and strategy • Submitted Core Strategy • Adoption <p>This will be further detailed in the NCC Environmental Sustainability Programme</p>	<p>NCC Planning Strategy</p> <p>NNPA</p>	<p>EA NE NWL EH</p>	<p>1-2</p>	<p>√</p>	<p>√</p>	<p>√</p>	
<p>1.3</p>	<p>The role that spatial planning can play in reducing carbon emissions will be explored through considering:</p> <ul style="list-style-type: none"> • The spatial location of development (including reducing the need to travel by private car in and between more populated areas) • Strengthening the roles and opportunities of town centres • Layout and design of new developments • Supporting opportunities for sustainable transport infrastructure. • Protecting and enhancing areas of biodiversity and green infrastructure. • Strengthening the opportunities for renewable and low carbon energy generation. 	<p>NCC Planning Strategy</p>	<p>EA NE NWL EH</p>	<p>1-10</p>		<p>√</p>		

1.4	<p>The role that spatial planning can play in adapting to, and making the communities, businesses and natural environment of Northumberland more resilient to climate change will be explored. Including:</p> <ul style="list-style-type: none"> • Avoiding development that would exacerbate and be affected by flood risk and providing guidance to make development more resilient to the effects of flooding. • Advising on design principles to minimise adverse effects from increased storminess (rainfall and wind) and temperature. • Designation of coastal change management areas. • Utilising green infrastructure to mitigate adverse effects. • Promoting transition to a low carbon economy including ensuring suitable site allocation. • Avoiding development and infrastructure that would exacerbate coastal erosion. 	NCC Planning Strategy	EA NE NWL EH NCC NNPA NC +NP AONB	1-10	√		√	Funding has been secured through the DECC LCF to support external consultancy on this.
1.5	A policy framework for climate change will be developed as part of the Local Development Framework to provide the context for implementing Development Management decisions.	NCC DM NCC BC	NNPA DM	3-5	√	√		
1.6	The Core Strategy will explore the appropriateness of a Planning Policy in which planning permission will only be granted where there is clear evidence that the proposal conforms to County policy statements on reducing carbon emissions and reducing vulnerability to climate change impacts.	NCC + NNPA DM		Depends on time to get framework in place	√	√		
1.7	The role that decentralized locally owned and distributed generation has in increasing local resilience and carbon reduction will be considered in the LDF and specific opportunities for project delivery will be developed by delivery agents.	NCC Planning Strategy	NCC Regeneration NCC Housing Planning Delivery	1-2	√	√	√	

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1.8	Building on the work of IMCORE, trial the sea level rise tool to better define the risk and implications of coastal flooding and incorporate adaptive responses into policy and spatial planning.	NCC Strategic Transport	EA SustainE NCC Highways and Neighbourhood Services	1-2	√			A two day workshop session was held for officers from across NCC and NSP involved in coastal affairs to introduce and trial the application of the IMCORE methodology. This will be taken forward by the NCC Strategic Coast Management Group
1.9	Ensure that the various renewable energy capacity studies that are being undertaken at a variety of spatial scales form a shared resource into the assessment of generation potential across the county to inform the LDF and make this information available to partners across the county.	Energy and Sustainability Manager		1-5	√	√	√	
1.10	Ensure the emerging Sustainable Energy Action Plan, required by the Covenant of Mayors, informs the development of the Local Development Framework.	Energy and Sustainability Manager		1-5	√	√	√	
1.11	The LDF process will use mapped green space to establish an evidence base for existing green infrastructure and open space outdoor sport and recreation integrating the recommendations of the BRANCH study. The possibility of identifying Green space Development Zones (like BDZs) and incorporating Greenspace access standards in new developments will then be explored as one mechanism to support the principles of Living Landscapes and ensuring a strategic approach to potential future species migration.	NCC Planning	NWT NE EA G NE NNPA NCC Local services NCC Culture NCC Asset Management		√			
1.12	Working in partnership, implement the Green Infrastructure Strategy by identifying suitable opportunities to increase woodland cover, increase or balance the microclimatic benefit, maximise biomass growth, secure flood prevention/slope stabilisation and carbon sequestration potential of trees and peatland.	Highways and Neighbourhood Services NCC Planning NNPA Planning	Partner organisations e.g. landowners, NNPA NP and NC AONB etc NCC Asset Management	1-10	√	√		Andy Rutherford identifies huge opportunities here and suggests working group of Terry Garnick, Ross Bullerwell, Charlotte Colver, Mike Jeffreys and Simon Rudman to progress this from NCC

1.13	All site allocations that are subject to sustainability appraisal will include the identification of carbon mitigation and adaptation to the effects of weather in future.	NCC Planning Strategy		3-5	√	√		
1.14	The requirement for a carbon impact report and statement of climate change resilience will be added to the NCC Validation Checklist for Planning applications and will be raised in discussions over pre-application advice. In cases where an Environmental Impact Assessment is required a formal carbon impact and saving report will be requested where it is felt that a proposal will have a large carbon footprint.	NCC DM NCC Environmental Protection		1-2		√		
1.15	The use of narec's carbon mixer toolkit (or the ERES tool for developers and planners) will be used to assist developers, planning officers and building control officers to agree the target carbon performance of buildings and the officer's report will use this to confirm adherence or non-adherence to NCC Climate Change Policy Framework.	NCC Planning Strategy, DM and BC		1-2	√	√		
1.16	Explore the opportunity to make best use of S106/CIL or equivalent to contribute to the delivery of low carbon living and adaptation.	NCC Planning Strategy		1-2	√	√	√	
1.17	The establishing of zero carbon standards for commercial and industrial development in line with the 2019 targets will be strongly considered. Planning Delivery and Development Management will work closely with developers to deliver good practice examples.	NCC Planning Strategy		1-10		√	√	
1.18	A representation will be made to central government on the need to legislate for carbon reduction through national building regulations. A trial which increases requirement for energy efficiency requirements for Building Regulations in Northumberland (beyond the National minimum) will be explored. Advice from DECC will be sought on the relationship with private inspectors and the effect on development rates will be monitored. (The ERDF funded Berwick Borough Housing project or other local projects could be used to set the trial standards).	NCC Building Control		1-2	√	√		

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1.19	Introduce delivery mechanisms and appropriate staff training within development management and building control to work proactively with developers to prepare them to meet the 2016, 2017, 2019 building regulations on zero carbon buildings.	NCC Spatial Planning		1-5	√	√	√	
1.20	Development Management and Building Control will work together to provide sufficient monitoring to ensure that developers who agree to planning conditions (e.g. increasing efficiency) then deliver it.	NCC Building Control and Development Management		1-2	√	√		
1.21	Integrate low carbon measures into new build affordable housing projects to create homes with affordable revenue costs for tenants. Develop demonstrations in both rural and urban settings that can be promoted by NCC Planning as an example to future developers.	NCC Housing and NCC Planning	Homes for Northumberland NCC Housing Groundwork North East	1-10	√	√	√	Affordable housing schemes will be developed to meet HCA requirements – Code for Sustainable Homes Level 3. Where NCC is directly developing affordable housing opportunities for exemplar developments will be identified
1.22	Develop best practice examples of both rural and urban sustainable retrofit on 'standard properties' and use this to inform negotiations with developers and to proactively encourage energy upgrading on properties applying for extensions.	NCC Housing and NCC Building Control		1-10	√	√	√	NCC housing team are working with WarmZone to insulate (lofts and cavities) standard properties, with separate 'hard to treat' scheme for solid wall properties, particularly in rural areas, together with a scheme specifically for the Cowpen Quay area of Blyth. Starting to develop some good practice examples eg Ford & Etal Estates properties and Shilbottle.
1.23	Examples of best practice in the integration of carbon reduction measures and adaptation measures on historic buildings and conservation areas will be shared between EH, NT, local estate owners, narec and NCC and NNPA Planning officers and a common agreement will be included in the policy framework on Climate Change to ensure consistency of decision making. Information on evidence will be made available on NCC and NNPA websites.	NCC Planning Strategy NNPA Planning	NT EH	1-2	√	√		The Local Carbon Framework Pilot Programme will share best practice and stimulate discussion between regulatory agencies to reach a common agreement.

Ambition 2 – Best use is being made of existing regulatory and licensing frameworks to achieve increased resilience and reduced carbon emissions at a local level.

2	Action Detail	Lead	Support Agencies	Time frame	A	M	E	Progress Update
2.1	Ensure relevant partners are working together to best implement the recommendations from the Pitt Review at a local level out with those statutory activities taken forward by the Flood and Water Act. Flood & erosion risk management measures are based on information about the long term implications of intervention as well as the implications over large spatial and temporal scales.	NCC Civil Contingencies	NCC Planning Northumbrian Water Limited	1-5	√			
2.2	Assess and consider the implications or opportunities that the EU Water Framework Directive might present to Northumberland to use our water resource and assess how this might be combined with energy generation.	Northumberland National Park Authority	NCC Environmental Protection Northumbrian Water Limited	1-10	√	√	√	
2.3	Encourage residents to switch to water metering with council tax circulation notifications.	NWL	NCC Revenues & Benefits	1-2	√	√	√	
2.4	Review the application of existing boiler regulations, building regulations, conservation area restrictions and waste regulations to ensure they are not unnecessarily obstructing carbon reduction or climate change adaptation. Work with responsible persons to ensure suitable supplementary training is sourced where identified.	NCC Building Control		1-2	√	√	√	
2.5	NCC will influence all public sector procurement to include carbon reduction as part of the tender process in Northumberland and include lifecycle costing through our internal procurement process.	Commercial and Property services	NHS North of Tyne NNPA Compete North East (Paul Taylor)	1-2		√	√	The requirement for carbon reduction and wider environmental sustainability has been built into the VCS Commissioning Framework for Northumberland (2011)

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2.6	Non public sector partners will ensure that their procurement strategies give substantial weight to assessing and balancing the various considerations required for sustainable and low carbon procurement and requirements for adherence to an environmental management system is requested through the tendering process.	All NSP partners		1-2		√	√	The requirement for carbon reduction and wider environmental sustainability has been built into the VCS Commissioning Framework for Northumberland (2011)
2.7	Ensure proactive support of businesses & households to help them become resilient to new risks because of changes in bacteria, viruses, fungi and pests.	NCC Public Protection		5-10	√			
2.8	Ensure that all flood and costal management decisions are in line with policies outlined in the SMP Northumberland Shoreline Management Plan.	NCC spatial Planning		1-10	√			

Ambition 3 – Northumberland's emergency planning regulations and incident recovery processes mean we are able to respond to extreme weather events in a co-ordinated and efficient manner and those most at risk are identified and protected both in the case of immediate hazards and for future risk.

3	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
3.1	Resilience planning will ensure that specific support is targeted at temporary residents, travellers and visitors who are particularly vulnerable during an extreme weather event.	NCC Civil Contingencies	EA	1-10	√			The EA have led an additional campaign targetting caravan and camping sites over and above the annual communication which has typically yielded low response. An advice booklet has been prepared and EA are working with NCC and NCC licensing to ensure checks for flood and fire plans are conducted as part of regular site visits.
3.2	A mechanism for sharing information and data between emergency responders from different organisations (applying the EA data sharing protocol) will be set up.	NCC Civil Contingencies		1-5	√			
3.3	EA has recently produced hand held maps to capture local knowledge on accessibility for emergency response personnel unfamiliar with the territory. These will be circulated to all potential response agencies and consideration will be given to developing a GIS satellite navigation system shapefile.	NCC Civil Contingencies	EA Ambulance Service Northumbria Police	1-5	√			
3.4	The Local resilience forum, having identified the risks and which populations or localities are most vulnerable in the Community Risk Register, will seek to better understand the geographic distribution and cumulative effect of these risks (see 14.3) and work with health and social care providers across the County to proof their services to climate change impacts and ensure services can be maintained during an extreme weather event.	Northumbria LRF/NCC Civil Contingencies/Care Trust	HC+W partnership	1-2	√			Links have been made with BIOPICC project to mirror the approach and benefit from the support of the work undertaken for older people—a joint meeting in September will review progress of each authority, this will be attended and a briefing will be circulated.

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3.5	Raise awareness over the risk, and seek to flood proof the 3 ambulance stations, 11 care homes, 17 community centres and 21 doctors' surgeries that have been identified as being at risk from flooding.	NHS North of Tyne	Individual service providers Ambulance service	1-10	√			
3.6	Following identification of local heat waves as high risk in the Community Risk Register, a Local Heat-wave plan will be formalised for Northumberland drawing from the National Heat Health Plan.	Care Trust/NCC Civil Contingencies		1-2	√			
3.7	Building upon 11.3, in which communities are supported to increase their own resilience, the asset owners of the buildings identified as 'rest centres' within the flood recovery plans for Northumberland will be encouraged to increase their energy self sufficiency to provide increased resilience during an emergency event and serve carbon reduction for their relevant organisations during day-to-day operation. This should include coastal communities at risk from storm surges.	NCC Civil Contingencies	Northumberland Community Flood Partnership	1-10	√	√	√	
3.8	Provision will be made for segregated disposal of waste originating from an extreme weather event.	NCC (Waste)			√			
3.9	Develop a series of resilience models – 10yr, 20yr, 50yr, 100yr in a partnership between local suppliers and academic forecasters to develop 'off the shelf' resilience packages that can be presented to customers.	Climate NE	NCC – Strategic Transport - FCERM	1-10	√			
3.10	Negotiate with the Association of British Insurer's to make provision for/ encourage the upgrading of resilience measures and the carbon performance of replacement materials during emergency recovery work.	North-umbria LRF	Northumberland Community Flooding Partnership, LGA	1-10	√	√	√	

Ambition 4 – Land is managed to maximise the landscape's ability to resist adverse weather conditions with its capability to contribute to a low carbon society. This will balance carbon retention/capture, alleviation of flood risk, reduce risk of erosion, provision of carbon neutral fuels, generation of energy, and spatial interconnections of habitat allowing species migration as climatic change impacts habitat.

4	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
4.1	Spatial planning will use the evidence from 14.11 To assist in the identification of land with a particularly important adaptation or carbon management function and to inform policy development within the Local Development Framework.	NCC Strategic Planning	NCC – Strategic Transport - FCERM	1-2	√	√	√	
4.2	Partners will individually assess the way that their organisation manages land to ensure the best compromise between these interests is achieved.	All	EA NWT FC NT Private Landed estates	1-10	√	√	√	
4.3	Catchment scale holistic management plans for Northumberland’s rivers will be developed building on the example of interagency working demonstrated by Cheviot Futures, applying knowledge generated from RELU projects to and including hydro-generation.	EA	Cheviot Futures Northumberland Rivers Trust NNPA NCC	1-5	√	√	√	
4.4	Unused and non-commercial land could be managed or gifted to community land trusts for a range of climate change mitigation and adaptation purposes such as sustainable biomass growth, biomass seasoning sites, flood detention basins, active management to provide habitat creation, migratory corridors or sites for renewable energy generation. NCC and NSP partners will strategically review land within their own holdings and explore suitable opportunities.	NCC- Commercial and Property Services	FC MOD UK Coal	1-5	√	√	√	

This package encompasses large-scale infrastructural changes identified to equip our transport, communications and utility networks to support a low carbon economy and be resilience to both natural and demand changes in the future. It also tries to ensure that the design of infrastructure and the associated service provision makes the decisions for sustainable behaviour easy and attractive. The softer mechanisms for encouraging people to make these choices are addressed in Work Package Six. This work package concentrates on ensuring that the infrastructure in place provides attractive conditions which support these choices being made.

Ambition 5 – Northumberland's existing transport infrastructure is resilient to the effects of both extreme and incremental weather changes.

5	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Report
5.1	Using the Mayrise system, a comprehensive assessment of the vulnerability of our transport infrastructure to flood, storm and heat will be undertaken to inform future planning and policy through the Local Transport Plan and identify routes that are vulnerable. This should be cross-referenced with key strategic routes for service delivery – e.g. social/health services and emergency services etc see action 14.3.	NCC Strategic Transport	NCC Civil Contingencies Health Care Board Highways and Neighbourhood Services	1-10	√			
5.2	Sustainable Urban Drainage should become standard practice. In particular, new roads should be modelled to reduce surface water flooding but runoff should be slowed down by the specification of retention channels and balancing ponds etc.	NCC Transport Strategy FCERM		1-5	√			
5.3	There will be an assessment of the need to specify stiffer road materials for key sites identified at risk of road surface melt during high temperature events. Best practice will be sought from Oxfordshire County Council.	NCC Highways and Neighbourhood Services		3-5	√			
5.4	Network Rail will be encouraged to conduct a resilience assessment of the railway routes running through Northumberland and connecting with the key centres of Edinburgh, Newcastle and Carlisle.	Network Rail	NCC (Transport)	1-5	√			

Ambition 6 - Northumberland is a low carbon society in which low carbon transport options ensure services are accessible to all despite our rural challenges. This includes a reduced need to travel, reformed service delivery, strong public transport and good active travel infrastructure.

6	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Report
6.1	A strategic prioritised delivery plan for improving multimodal transport interchanges across the county will be developed ready for implementation as funding opportunities are identified. The potential for a partnership of delivery providers to develop a European funding application for significant capital investment will be explored. This will be informed by feedback on transport needs from Adapt's hosted Transport Link.	NCC Transport Strategy		3-5	√	√	√	
6.2	Work with bus and train companies to increase the provision and attractiveness of public transport services to achieve the threshold of provision and comfort that will make services sustainable. This will involve a holistic consideration of infrastructure, timetabling, marketing, ticketing, branding etc.	NCC Transport Strategy		5-10	√	√	√	
6.3	NCC transport team will explore the powering of NCC fleet and promote public transport vehicles to be converted to alternative fuels including biodiesel or biogas if a strong network in anaerobic digestion biogas develops.	Commercial and Property Services	EFFP CoRE NNPA	3-10	√	√	√	
6.4	Projects to develop electric charging infrastructure across the county will be proactively pursued to further Northumberland's participation in the 'North East Low Carbon Economic Area' and to complement existing charging infrastructure by Northumberland National Park and NCC 'Plugged in Places'.	NCC Highways and Neighbourhood Services	NNPA AONB NCC tourism	1-5	√	√	√	
6.5	Electric car/motorcycle clubs will be established in all key market towns, linking to the charging infrastructure	NCC Transport Strategy	Community Transport	3-5	√	√	√	
6.6	An increase in the provision of cycle and footpath infrastructure will be negotiated especially in urban areas, on heavily frequented travel routes, measured need from accident statistics and to better link national and local trails, by maximising the use of Community Infrastructure Levy and S106.	NCC Transport Strategy	Public Protection NE (as per duty in Marine and Coastal Access Act 2009)	1-10	√	√		

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6.7	Vary school times to reduce congestion and allow school transport providers to make smarter double journeys.	NCC Transport Strategy/ NCC Schools		5-10	√	√	√	
6.8	The commitment to reduce carbon will be specified into commercial bus contracts.	NCC Transport Strategy		1-5		√		
6.9	Community transport providers will be encouraged to trial low carbon vehicles and support will be provided to secure funding.	NCC (Transport)		1-5	√	√		Work with Adapt through the local carbon framework includes trial of an electric vehicle.
6.10	Rail User group campaigning (SENUG and Alnmouth) on timetabling and service provision will be given stronger support by NCC where this does not adversely impact on other station services in Northumberland. This will include support for re-establishment of passenger journeys on the Ashington Tyne railway line.	NCC Transport Strategy	Rail User groups	1-10	√	√	√	
6.11	Northumberland County Council will explore flexible low carbon working solutions including developing integrated front office functions for public sector organisations in key settlements and introducing flexible hot-desking facilities for staff which could be extended to private and third sector employers and active promotion of telephone and video conferencing.	NCC Commercial and Property services	NCC NHS NNPA NE EA DEFRA Connexions Job Centre Plus DWP NW FONDT	3-5	√	√	√	
6.12	Explore ways in which the resilience to climate change in Northumberland could be improved through the delivery of some services locally, particularly in rural communities which are likely to be worst affected by increased oil costs over the long term. Recognising “transport poverty” as a driving consideration. This will be explored through the Local Carbon Framework Programme.	NCC (Local Services)	NHS	1-2	√	√	√	The local carbon framework programme is exploring ways of layering several services in the same journey in a trial area between Hexham and Redesdale to minimise journeys required by both service providers and service recipients.

Ambition 7 – Northumberland's telecommunications infrastructure is resilient to the effects of both extreme and incremental weather changes and meets the requirements of remote communities and increased levels of remote working.

7	Action Detail	Lead	Support Agencies	Time – frame	A	M	E	Progress Update
7.1	The Local Resilience Forum and the NCC Civil Contingencies Team will continue to work with telecommunications network to develop appropriate contingency plans as a result of extreme weather events. Flood data from the Environment Agency should be used to identify those sites which may be at risk from extreme weather events and/or erosion.	Local Resilience Forum/NCC Civil Contingencies	EA Tele-communication industry NCC Strategic Transport - FCERM	1-5	√			
7.2	Ensure all parts of the county have access to broadband services and where possible provide next generation broadband services (40MB+).	NNPA NCC Regeneration	NCC Highways and Neighbourhood services Tele-communication partners	1-5	√	√	√	

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Ambition 8 – Northumberland's utility infrastructure should be made resilient to both extreme and incremental weather changes and be prepared to cater for the projected changes in demand.

8	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
8.1	A comprehensive assessment of the vulnerability of Northumberland's energy utilities infrastructure to flood and storm damage will be undertaken to inform future planning and policy.	Utilities Providers	NCC – Planning Strategy	1-5	√			
8.2	An assessment of Northumberland's various water supplies needs to be conducted and considered in the light of projected changes. This should include competition for supply with an eye to future national demand (EA) and inward investment from water intensive companies (Regeneration), as well as an increased use and reduced or sporadic supply. The effects on water quality as well as quantity need to be included (EA). Particular areas for concern include Berwick and Wooler. This will also be informed by the Water Cycle Study, being undertaken for the Local Development Framework.	NWL	EA NCC Regen NCC Planning Strategy	1-10	√	√	√	
8.3	Establish better partnership working between NCC, NNPA and NEDL and Scottish and Southern Electricity Ltd with the intention of better sharing information and influencing strategic prioritisation of investment linked to strengthening connection capacity and promotion of both community scale and individually owned micro-renewables.	NCC NCC Policy and Research and Strategic Planning (through LCF) and NNPA	NEDL SSE	1-3	√	√	√	NCC and NNPA together with NREG are involved in the North East Low Carbon Network Project Customer Network Revolution in which these concerns are being raised and addressed.
8.4	There are a number of organisations seeking to offer ESCO services in Northumberland. These will be supported and promoted to establish good practice in local energy network development.	NCC Commercial and Property Services, Core, narec		1-10	√	√	√	
8.5	Prioritisation of drainage upgrades will consider areas of identified risk or with a history of pluvial flooding and specification will incorporate increases in capacity to reflect predicted increases in frequency and intensity of extreme events.	NW NCC Strategic Transport	NCC Highways and Neighbourhood Services (delivery)	1-10	√			

Ambition 9 – Northumberland produces little residual waste and has a robust infrastructure for recycling 50% of all recyclable materials. Energy from residual waste is recovered.

9	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
9.1	Northumberland's residents and visitors are able to reuse/recycle the 50% of their waste. Solutions to address the lack of commercial viability of many recycling streams which deter collection will be explored with the private and voluntary sectors so that new services and facilities can be developed and a greater range of materials reused/recycled.	NCC (Waste)	NNPA WRAP	1-10		√	√	
9.2	NCC undertakes a proactive negotiation role with supermarkets represented within the County to reduce packaging promote use of single packaging types to enable recycling without disassembly and provide information about which types of material can be recycled in the local area.	NCC (Waste)	NNPA WRAP	1-5		√		
9.3	Where communities wish to develop autonomous waste solutions e.g. kitchen waste collection, suitable support and advice over environmental health compliance will be provided.	NCC (Environmental Health)	NCC (Waste)	1-10		√		
9.4	Work with community and voluntary sector organisations to maximise the number of items made available for reuse in the local area.	NCC (waste)		1-10	√	√	√	
9.5	NCC will take the lead role in developing commercial recycling services to assist businesses to become more sustainable.	NCC (waste)		1-5		√	√	

Northumberland Strategic Partnership has a strong role to play in ensuring a supportive environment is provided to encourage and facilitate grassroots activity and to work with communities to increase their empowerment and capacity to take the lead on climate change activity at a local level. Work Package three therefore concentrates on exploring how we, as organisational actors, can better support communities to achieve local goals on this agenda. It does this by

firstly strengthening the capacity of organisational actors themselves to perform this co-productive and supportive role. It then focuses on ways in which these actors can better support the plethora of community led activity on climate change emerging in Northumberland, help strengthen the capacity of communities and individuals to deliver their ambitions and facilitate discussion with strategic partners to resolve potential barriers.

Ambition 10 – Communities are well supported by informed policy makers, support workers and service providers to develop the necessary skills to take action. There is a good understanding of what drives community responses, what works and how to overcome challenges, and staff have the skills and commitment to facilitate community leadership.

10	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
10.1	The NSP has committed part funding to a three-year project to investigate rural community responses to climate change. The findings of this will be used to inform a supportive policy framework and present findings to key decision makers	NCC Policy and Research	NNPA	1-2	√	√	√	A discussion event was held on 9/6/11 to reflect on the findings of this research and the implications for local government in Northumberland.
10.2	Arrange training to respond to needs of policy makers and community support services across the NSP Partnership. E.g. bespoke MET office seminar for strategy developers	NCC Policy and Research		1-2	√	√	√	
10.3	Source specialist support to assist in the development of the Local Development Framework and Local Transport Plan policy frameworks widening out to other service areas if successful.	NCC Policy and Research		1-2	√	√	√	Specialist support for the LDF and LTP is being funded through the Local Carbon Framework Programme.

Ambition 11 – Tangible support is provided to Northumberland's communities to ensure they are well adapted to the forecast impacts and information is available on how individuals can best adapt their homes and community facilities to be resilient.

11	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
11.1	Raise and manage community awareness of the predicted effects of climate change in their area. Including developing key messages relevant to individual communities, models of predicted change, and a support framework to empower local action and manage alarm. This will provide a precursor to activity 3.7.	Northumbria LRF	NCC Civil Contingencies Climate NE	1-10	√	√	√	
11.2	Information on the different aspects of resilience and how communities can develop physical, economic, social and environmental resilience to a range of risks posed will be collated and shared between communities and support agencies. This could include production of a local resilience toolkit – drawing adaptation suggestions down to the local household level to offer practical solutions to make homes more resilient which could be circulated with Council Tax notifications.	Durham, Newcastle or Northumbria University Student Project?	NCC Policy and Research NCC Civil Contingencies NCC Finance	1-5	√	√	√	
11.3	Individual support will be provided to communities to build their own capacity to increase resilience to a broader range of risks at a local level.	NCC Civil Contingencies/ NFRS Highways and Neighbourhood Services	EA	1-10	√			Continuing support through Northumberland Community Flooding Partnership and Northumberland Wildfire Group.
11.4	Build confidence in developing local renewable energy solutions by establishing a network of green community champions who achieve best practice energy efficiency and integration of renewable energy and are willing to act as a visual showcase within their community.	Groundwork North East	CAN NREG	1-5	√	√	√	

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11.5	Residents in Northumberland are encouraged and supported to grow their own food through a series of events, edible hanging basket competitions and promotion of community orchards. NCC will explore the possible use of plastic garden waste boxes and negotiated private sector seed donations for those in urban areas.	Groundwork North East	NCC Highways and Neighbourhood Services and NCC (Waste) Transition towns	3-5	√	√		
11.6	Initial pilots are supported through Transition Towns to rethink the use of public/community space to facilitate local growing projects. Examples from Haltwhistle and Todmorden should be built upon and could include NCC edible street planting, increased provision of allotments and the possibility to trial a demonstration with The Alnwick Garden in line with the 'Garden Town' principle. Relevant NCC service areas will support this trial and work to build partnerships in other communities across Northumberland to replicate the approach if successful.	Transition Towns (initial pilots)	NCC Regeneration NCC Locality Development Team NCC Highways and Neighbourhood Services Town and Parish Councils Development Trusts Groundwork North East	3-5	√	√	√	

Ambition 12 – Tangible support should be provided to support and assist Northumberland's community grassroots initiatives to reduce their carbon emissions, such that communities can access information and tools to help them reduce their emissions and can share experience and learn from each other.

12	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
12.1	Purchase a batch of thermal imaging cameras and energy display monitors for loan to communities/households.	NSP NNPA	CoRE	1-2		√	√	Thermal Imaging cameras purchased by NCC and Energy Monitors by NNPA in 2011
12.2	Explore the possibility of setting up social forum/blog/communities of practice web facility either through 'transition towns' movement or through the NSP to allow exchange between communities of low carbon activity. This would also provide a responsive mechanism for people to communicate where the barriers to their activity lie.	CoRE	VCS Consortium	1-5	√	√	√	
12.3	Information about how to achieve carbon reduction at a community level is collated and made available to communities and events to showcase good practice are scheduled. Community Exchanges between pro-active and non proactive communities will be facilitated so that best practice can be shared.	Groundwork Northumberland	NREG NCC Policy and Research (via LCF)		√	√	√	A series of Community Exchange visits to share best practice and stimulate take up have been supported and documented as part of the Local Carbon Framework Programme 2011
12.4	Guidance should be provided on how to develop renewable energy solutions, how different solutions can be integrated together how to avoid potential problems and how to move from individual solutions to community scale efficiencies of generation.	NREG	NSP		√	√	√	Learning From Leaders – A guide to Developing a Renewable Energy Project was produced in 2010
12.5	In the review of land holdings held by the public sector and asset rationalisation programme opportunities to gift/lease/asset transfer suitable land which otherwise would not have a significant commercial value for community renewable energy generation will be explored.	NCC Commercial and Property Services	CoRE	1-5	√	√	√	
12.6	Northumberland County Council and its partners will continue to encourage participation in waste reduction, reuse and recycling by providing good information on the breakdown for collection of different material types including working within schools.	NCC (Waste)	NNPA NWT NE	1-10		√		

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Ambition 13 – There are a sufficient range of financial mechanisms available that there is ease and equality of access to capital to enable community activity.

13	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
13.1	Community proposals for carbon reduction activity could be combined to form a large enough strand to be considered for an application to European funding or the Regional Growth Fund.	NCC Regeneration	NCC Policy and Research	1-5	√	√	√	
13.2	Develop a revolving loan scheme for homes, businesses and communities which provides a loan for capital expenditure repayable through the Feed in Tariffs. This might utilise the national 'Green Deal', the regional EIB bid, the expansion and remarketing of the 'Saverbox' concept piloted through 'Low Carb Lane', a social impact bond or a revolving loan such as that developed by Kirklees Council.	NCC Commercial and Property Services CoRE	ANEC narec Warmzone	1-5	√	√	√	CoRE has explored the possibility of a Social Impact Bond and has secured funding to develop a Social Bond. The possibility of rolling out the NCC Council house PV scheme to the private sector will be explored through the Newcastle Pathfinder Retrofit Model. The Regional Loans Scheme in place for home improvements (with Five Lamps) could be expanded to include renewables – this is subject to funding but could be financed through prudential borrowing based on FITs revenue.
13.3	Co-ordinate a countywide approach to securing community benefits from commercial energy generation developments in order to maximise the economic and social value of energy infrastructure for local communities.	NCC – Locality Development Team	NCC – Strategic Planning Voluntary and Community Sector CAN	1-2			√	

Work Package 4: Developing and Applying Forerunning Research

Access to reliable and locally relevant information is essential to informed decision making. Work package 4 will concentrate on applying and disseminating new areas of research that explore the implications of climate change for Northumberland. It will also seek to develop a rich data resource which will collect and share data and information amongst partners to produce intelligence, inform activity development and to monitor progress on carbon reduction for the committed targets. The types of research commissioned will include

applying and interpreting existing findings to consider what they might mean for Northumberland at a local level, pioneering new methodologies and researching solutions to particular local challenges and making existing information more available to a range of different audiences. This package offers particular value for money by addressing these data and research needs in partnership ensuring we all have the best information at our fingertips to target activity.

Ambition 14 – There is a shared understanding about the predicted impacts of climate change at a detailed local level. We understand the likely risks to different human populations in different localities across Northumberland, this understanding is central to health care provision and emergency response procedures across the County. We also understand changes to the distribution of natural populations and habitats and are trialling projects to ensure species are able to adapt.

14	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
14.1	Conduct a Local Climate Impacts Projection for Northumberland drawing from the ClimateNE work on climate change adaptation and carbon trajectories and projection modelling by UKCIP09. This should be linked to Action 25.1 sector specific action plans.	NCC Policy and Research	Newcastle University NCC Civil Contingencies ClimateNE	1-2	√		√	
14.2	Undertake a detailed assessment of which sites and buildings of historic and cultural significance are of particular risk from flooding or coastal erosion and develop a strategy to support their future management. This should extend work undertaken by English Heritage that produced a 'Heritage at Risk' register for listed buildings to capture other assets not captured through this process. Such as grade 2 listed and undesignated local sites and to ensure climate change is one of the risks identified.	EH NCC Conservation	NNC (tourism) NNPA	1-2	√			

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14.3	There is a detailed, shared and accessible resource which maps vulnerability and resilience to different risks across the County (to enable 3.4 and 5.1).	NCC Policy and Research support to NCC Public Protection	NCC Civil Contingencies NFRS NCC Highways and Neighbourhood services through Mayrise system Flood and Coastal Management Group Northumberland Care Trust	3-5	√			
14.4	The differential impact of climate change on particularly vulnerable populations is well understood and the impacts of future projections for climate change and demographic change are integrated into care plans.	Northumberland Care Trust	NHS North of Tyne Public Health England	3-5	√			North of Tyne NHS will raise whether there are channels to raise this through the Contingency Planning Group
14.5	Health care providers are aware of the forecast changes especially in vector and water-borne diseases and their respective services are well prepared to meet this demand.	Public Health England	Northumberland Care Trust NCC Public Health	3-5	√			
14.6	A number of particularly vulnerable communities are supported to explore how to adapt their living patterns to better cope with the effects of climate change. (The approach of BIOPICC at Durham University could be mirrored here).	NCC Public Health NCC Adult Services	NCC Highways and Neighbourhood Services NHS North of Tyne NCC Civil Contingencies	5-10	√		√	
14.7	Explore the application of the principles from the North Pennines AONB Peatscapes project to manage Northumberland's peat landscape through HLS agreements	Cheviot Futures	NNPA	1-10	√	√		

14.8	Profile and integrate the findings of the Wallington soil carbon research into land management practice and encouraging wider uptake of sequestering measures through trialling integration with HLS.	NE and NT	NNPA, CLA	1-2	√	√	√	A trial was funded through the Local Carbon Framework Programme in 2011, this further developed the methodology and profiled the work with DECC and among local landowners.
14.9	Explore potential to link with trials of the emerging work on the role of biochar with the universities of Edinburgh and Newcastle	NNPA	Cheviot Futures/ Natural England	3-5	√	√	√	
14.10	Promote the use of 'BEAT2', work with EA to develop and trial a hierarchy of biomass to inform policy and practice within Northumberland and raise awareness of 'Biomass Saint or Sinner' findings	FC	EA NCC NNPA NWT	1-2	√	√	√	
14.11	In connection with ERIC and UKCIP09 a GIS map of projected changes in habitat and species distribution for Northumberland will be produced. When published, this will be used to inform the Green Infrastructure Strategy and develop adaptation strategies for habitats at risk. To ensure the data on present distribution is sufficiently detailed partners will be encouraged to contribute to the ERIC project.	NWT NE	FC	1-2 (to fit with GIS)	√		√	
14.12	A set of climate change indicator species will be developed and monitored to assess the speed and pattern of species change.	NE	NWT	1-2	√			
14.13	Information will be provided to farmers, foresters and veterinarians to ensure suitable awareness of projected changes in plant animal and pest diseases to ensure appropriate action is taken.	NFU FC RSVP		5-10	√			
14.14	Commission a study to consider the impact of coastal squeeze and dune roll back on communities, infrastructure and habitats.	NCC Conservation EA	NCC Policy Reaserch	1-5	√			

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Ambition 15 – Northumberland has a rich shared data repository for monitoring and informing activity.

15	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
15.1	Carbon performance is captured in a shared database which served all reporting needs. A central repository is established for partners to share carbon performance information for Northumberland. E.g. trial of Ecoregion Tool is developed.	Corporate Policy	NCC Energy & Manager	1-2		√		
15.2	Develop better ways of measuring our embedded and emitted carbon, methane and other greenhouse gas performance to monitor local trajectories.	NCC Policy and Research	NCC Energy Sustainability Manager NNPA Local Carbon Framework	3-5		√		
15.3	Assess the role that qualitative measures might play in the justification and measurement of adaptation and mitigation activity.	NCC Policy and Research	NCC Energy Sustainability Manager NNPA	1-2		√		
15.4	The potential to use surveys such as the EST Green barometer tool and the NNPA Housing Survey as a measure of change will be explored.	NCC Policy and Research	NCC Energy & Sustainability Manager NNPA	1-2		√		Initial investigations of the Green Barometer have raised serious questions over the findings. This needs greater exploration to explore whether it offers a suitable mechanism.

Ambition 16 – Social science research into applying knowledge produced about climate change will be explored to increase the successfulness of methods of public engagement.

16	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
16.1	Connections will be made with local university research to identify ongoing opportunities to better inform effective practical delivery. In the short term examples include BIOPICC, Environmental Knowledge Controversies project and RELU suite of projects but this will evolve throughout the lifetime of the plan.	NCC Policy and Research	Durham University, RELU Newcastle	As and when required	√	√		Environmental Knowledge Controversies Learning has been fed into the development of the LCF Project Contribution has been provided to RELU programme to tailor findings to public sector audience
16.2	A pilot will be established to explore the use of community social marketing to resolve barriers to behaviour change	NCC Local services and NCC Transport		1-2	√	√		A pilot project to explore the application of CSM principles to sustainable travel decision making is underway
16.3	Cross reference to 24.1 and seek university support to explore what an economic vision which decouples economic growth from carbon emissions might look like.	NCC Policy and research	Durham University Newcastle University	1-10	√	√	√	

There is much competing information circulating on climate change at present but too much information is very general and simplified, for and by, its media presentation. There is benefit in offering people opportunities to become better engaged in the complexity of the science behind the media stories and to provide information which is useful and specialist enough to inform local action but which is in a

format that it is neither too complex nor too difficult to interpret. This engagement needs to reach new audiences and raise awareness among those not currently participating in activity. There are therefore opportunities to look to new media forms with which to communicate and explore understandings of climate change and the need to mainstream a culture of sustainability across Northumberland.

Ambition 17 – Creative opportunities for engaging audiences in the science of climate change will offer a range of audiences a better understanding and engagement.

17	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
17.1	An innovative programme of public lectures should be developed to facilitate better understanding of the science and actively encourage participation and debate.	Inspire	NCC Policy and Research	1-2	√	√		
17.2	Work with youth theatre to produce a touring climate change related drama production to be performed across both rural and urban settings.	Inspire	NCC Culture and Tourism	1-2	√	√		
17.3	Opportunities to engage young people to gain a better understanding of what climate change may mean for them and their local community will be developed with the Youth Service and Youth Cabinet. Young people will be encouraged and provided with a mechanism to contribute to decision making on how Northumberland will respond.	Youth Cabinet	NCC Energy & Sustainability Manager	1-2	√	√	√	
17.4	Explore integration with cultural festivals and events and explore 'artist in residency' and public art.	Inspire	NCC Culture and Tourism	1-5	√	√	√	
17.5	Provide opportunities for climate change to contribute to addressing the democratic deficit by engaging publics in debate.	Inspire	NCC Culture and Tourism, NCC Locality Development Team	1-5	√	√		

Ambition 18 – Northumberland will have a low carbon culture with all major organisations offering strong leadership. Each partner organisation will encourage carbon reduction activity amongst our employees.

18	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
18.1	Ensure that the drive behind the NCC Carbon Management Programme is continued after the support period and through the restructuring process and explore opportunities for financing delivery.	NCC Local Services	NCC Policy and Research	1-5	√	√	√	A Climate Change Board within NCC has been established with governance over the ESP Framework
18.2	Encourage each NSP partner organisation to set a carbon reduction target and detailed action plan.	NSP Board Champion		1-5	√			
18.3	Implement schemes which encourage behavioural change carbon reduction activity amongst our employees.	All (NCC Local Services)		1-5	√	√		
18.4	As part of NCC Estates Transformation Programme, encourage flexible home/local working arrangements linked and provide infrastructure and encourage a culture of tele/video conferencing.	All (NCC Local Services)		1-2	√	√		
18.5	NCC will optimise fleet use, procure flexible use vehicles with alternative fuels and procure pool cars, working with sustainable transport strategy to develop policies to encourage use.	All (NCC Local Services) NCC strategic transport		1-5	√	√		
18.6	Explore ways of encouraging low carbon social regulation through a variety of social change mechanisms including community social marketing. (For NCC this will be through the Climate Change Champions Scheme)	All NCC Sustainability	NCC Locality Development Team	1-10	√			
18.7	Explore opportunities to use local media to champion local activity	NCC Communications	NCC Locality Development Team	1-10	√	√		
18.8	Encourage the third sector to develop an organised response which identifies contributions to this delivery plan	VCS consortium		1-2	√	√	√	

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18.9	Explore street energy performance competitions and neighbourhood competitions.	Highways and Neighbourhood services	NCC – Communications team Co-Op	1-5	√	√	
18.10	NCC will ensure that council houses are demonstrators of best practice in carbon reduction and climate change adaptation and will encourage social housing providers to do the same.	NCC Housing		1-5	√	√	Carbon reduction is being promoted through Social Housing Partnership. The PV scheme currently being rolled out to 400 suitable Council houses, is to be followed by further phases following suitability assessment and could be made available to other housing providers.

Work Package 6: Incentivising behaviour change

It is not enough to simply raise awareness and to encourage individuals, communities, businesses and organisations with words to take action, instead real mechanisms to enable and incentivise for people to take action need to be provided. Work package six focuses on developing such mechanisms across a range of activity areas.

Particular focus is on developing financial incentives but also mechanisms which make low carbon choices and climate change adaptation choices easy and attractive to the average decision maker.

Ambition 19 – Low carbon transport choices are easy and attractive for both individuals and organisations and where possible it is financially advantageous to implement low carbon decisions.

19	Action Detail	Lead	Support Agencies	Time frame	A	M	E	Progress Update
19.1	Develop a comprehensive web based sustainable travel planning service which reflects a range of options from an 'are you going my way' travel log to car clubs, voluntary driver schemes, public services and return service vehicle journeys to help make better use of existing transport options.	NCC Transport	NNPA NE	3-5	√	√		
19.2	Support the establishment of community car sharing schemes and car clubs across the County with clear information on booking promoted via this central repository.	Private sector car club providers	NCC Transport	3-5	√	√	√	
19.3	Provide suitable information to inform transport decisions. This may include presenting a summary of the relative carbon impacts of different transport choices and of the frequency of private car model upgrading vs. the increased efficiency of engines.	EST	NCC Transport	1-2		√		
19.4	Build on the regional 'Single Ticketing Initiative' to explore ways of incentivising public transport journey choices throughout Northumberland and across administration boundaries.	NCC Transport		1-5		√		
19.5	Encourage active travel through the provision of cycle changing facilities at transport interchanges and workplaces and run social marketing campaigns.	NCC Transport		1-5		√		
19.6	Secure some influential eco-driving champions across the County and conduct a profiling media campaign.	NCC Transport	EST NNPA	1-5	√	√		

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19.7	Support EST to run a series of eco-driving training courses with simulators.	EST	NCC Transport	1-2		√		
19.8	Building on Action 5.2 which sets the necessary conditions to encourage transport choice change - explore marketing mechanisms to address the challenge of making public transport journeys more economically attractive than those by private car.	Bus and Train companies	NCC Transport	5-10	√	√	√	
19.9	Apply differential car parking charges across the County for low carbon vehicles E.g. – free parking for electric vehicles.	NCC Transport	NNPA British Legion major attractions Hospitals Northumbria Water etc	1-2		√		
19.10	Conduct an eco-driving challenge competition in Northumberland	NCC Transport	NNPA	3-5		√		

Ambition 20 – Low carbon household choices on energy and waste and purchasing are easy and attractive and where possible it is financially advantageous to implement low carbon decisions.

20	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
20.1	Expand the application of the 'Energy Dashboard' concept or other visual consumption tools among Northumberland households.	NCC local services	National Energy Action	3-5		√		
20.2	Explore the potential for a national pilot to offer a locally defined discount in Council Tax based on Energy Performance.	NCC Finance		3-5		√		
20.3	Ensure the existing accreditation scheme for the private rental sector builds in climate change mitigation and adaptation (e.g. the Green Landlord Initiative in London).	NNPA	NCC Housing	3-5		√		Statements of energy efficiency have been built into the Landlord Accreditation Scheme and reference is made to WarmZone & Warm Front, who have also attended Landlord Forum meetings to promote their service. Work is underway to promote insulation schemes available through WarmZone with private landlords.
20.4	Explore creative ways of incentivising domestic reduction and recycling	NCC Waste		1-5		√		
20.5	The financial benefits of insulation and micro-renewable domestic generation and signposting to a suitable support service is included in all council tax circulations	NCC Revenue and Benefits	EST	1-2		√		If NCC is able to offer a PV (and/or Solar Thermal) scheme to the private sector then this should also be included.

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Ambition 21 – Low carbon and increase resilience choices by businesses and employers are easy and attractive and where possible it is financially advantageous to implement low carbon decisions.

21	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
21.1	Information on how to improve carbon performance linked to reducing baseline revenue costs is built into the Business Support Simplification Process and business diagnostic	BENE	LEP Business Support Agencies NCC Regeneration NCC Public Protection	3-5	√	√	√	
21.2	A local Stern assessment will be undertaken to evidence the economic risk to the County and demonstrate the cost of not taking action.	NCC Regen	ClimateNE BENE Newcastle University	1-2	√	√	√	
21.3	Business advisors will utilise BACLIAT or CLARA – Climate Adaptation Resource for Advisors to help businesses and organisations to identify measures	BE-NE	NCC regeneration Business Support Agencies	1-10	√	√	√	
21.4	Explore the potential for a national pilot to offer a locally defined discount in Business Rates based on Energy Performance.	NCC Finance		3-5	√	√	√	
21.5	Using efficiency to incentivise participation the opportunity to combine library, prescription, postal deliveries and school/community transport will be explored. This could also link to the central journey planning web-resource 21.1	NCC (Local Services)	Northumbria Health Care Trust	1-10	√	√	√	Through the Local Carbon Framework Programme ADAPT is piloting the possibility of combining service delivery journeys.
21.6	Explore opportunities for recycling and waste reduction in the commercial sector through Northumberland Waste Partnership and work with private collection services where NCC cannot deliver.	NCC (Waste)		3-5		√	√	

21.7	The financial benefits of insulation and micro-renewable domestic generation and signposting to a suitable support service is included in all business rate circulations (linked to banded business rates)	NCC (finance)		3-5	√	√		If NCC is able to offer a PV (and/or Solar Thermal) scheme to the private sector then this should also be included.
21.8	Develop a programme of business to business mentoring, working with a key business in each sector to develop transferable expertise and a supported programme for them to support other businesses to improve resilience and achieve carbon reduction.	BE-NE	NCC Civil Contingencies LEP NECC FSB EEF NEPIC	3-5	√	√	√	
21.9	Explore the participation in /replication of business networks such as '2 degrees' or NWDA 'Green Mondays'	BE-NE	LEP	1-2	√	√	√	
21.10	Explore ways to promote identification with the consequences for example –the cost of flooding and other extreme weather events will be showcased and disseminated linked to the Local Stern Assessment.	NCC Regeneration	NCC Civil Contingencies BENE LEP NECC FSB	1-2	√	√	√	

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Ambition 22 – It is easy, attractive and financially advantageous for land managers and farmers to proactively manage land for carbon benefit, climate change adaptation services and to provide receiving habitats for migrating habitats and species displaced through climate change?

22	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
22.1	Explore e-pilot mechanisms to develop mainstream recognition for 'ecosystems services' and to incentivise land owners/managers to adapt land management practices to achieve a wide range of ecosystems services (including migration of habitats, carbon sequestration, water management, soil stabilisation etc) and reward them for services that this management provides.	NE	EA NNPA NCC & NP AONB	1-10	√	√	√	
22.2	The Cheviot Futures Delivery Plan will demonstrate landscape scale adaptation to climate, which can be profiled countywide. The Cheviot Futures Action Plan will detail specific ambitions and NSP partners will be encouraged to support delivery.	Cheviot Futures Project Officer NNPA/Tweed Forum	NW NCC Highways NCC Planning	1-3	√	√	√	
22.3	Local projects to create/protect/improve specialist habitat will be initiated (e.g. Bees and Trees) in local urban, rural and coastal environments.	NCC Highways and Neighbourhood Services	Groundwork North East	1-5		√		
22.4	Establish 'Low Carbon Northumberland' carbon offsetting scheme.	NCC Policy + Research	NNPA	3-5		√	√	

Work Package 7: Creating a thriving Low Carbon Economy

Adapting to climate change and reducing our carbon dioxide and other greenhouse gas emissions offers significant opportunities for Northumberland's economy. As well as ensuring our businesses are resilient to the effects of climate change, it is important to support indigenous businesses within Northumberland to make the most of diversification opportunities to access new and emerging markets as well as strengthening the county's economic base by attracting inward investment to develop a low carbon economy.

Northumberland has a real opportunity to develop a competitive edge through clustering of low carbon businesses and a skills development network to both drive and benefit from this economic development. The Northumberland Economic Strategy and the North Eastern Local Enterprise Partnership Delivery Plan will both prioritise the Low Carbon Economy especially increasing the absolute number and relative strength of low carbon industries and increasing business resilience.

The focus of this work package will compliment the activity identified in these plans by focussing on the role that Northumberland Businesses can play in reducing carbon emissions and increasing resilience to climate change effects. Although adaptation and mitigation activity often bring immediate economic benefits and compliment parallel work on rural deprivation and fuel poverty (both from heating costs and rural transport), in some cases this activity will not present win-win opportunities and so difficult decisions over short term finance will need to be made. It has been suggested that the initial focus for this work should be the land-based sector as an important sector for Northumberland that will be most immediately and directly impacted by climate change. This sector is likely to experience changes first, and so as the North East Economic Implications of Climate Change Study has highlighted, may act as a useful trial and precursor to test the approaches identified.

Ambition 23 – Northumberland's economy is based on equality of prosperity and sustainable business activity.

23	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
23.1	Work with partners to assess and define an economic vision for the county that decouples continued economic growth from rising carbon emissions.	NCC Regeneration Policy	NCC Regeneration Policy & Research	1-2	√	√	√	
23.2	Explore ways in which Northumberland might benefit from the economic value of carbon markets.	NCC Commercial and Property Services	NNPA BENE (very interested) NCC Policy and Research	1-2		√	√	

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Ambition 24 – Existing and new businesses sites are resilient to both incremental climate impacts and catastrophic events. Northumberland's business sector is well informed about the need and means to adapt to changing climate and how to reduce their operation or procured carbon emissions. The bridge between public sector drive on climate change and local business response is strengthened.

24	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
24.1	Develop sector specific adaptation plans for key sectors, beginning with the land-based sector, to ensure economic livelihoods are adapted to change. The land use sector will be used to pilot this approach building on the ARUP report, the Natural England SENCCAP and Cheviot Futures. Outcomes of this work could include raising awareness amongst farmers and land owners about the implications of climate change and to ensure adequate signposting to advice and supported trials is provided and trialling research and demonstration projects with key stakeholders. <i>(This is important to look at sectorally because the regional economic implications of climate change work has highlighted the fact that cumulative effects are likely to provide a more serious challenge than any single individual impact).</i>	NCC Regeneration NNPA FC	NCC Public Protection NE CLA NFU	1-2	√	√	√	
24.2	Work with individual businesses regardless of sector to increase the awareness of businesses to the risks posed by severe weather and encourage and work with businesses to develop tailored contingency plans. A particular focus will be given to supporting home-based micro-businesses who are particularly vulnerable to loss of both home and business.	EA	NCC Regeneration NCC Public Protection NCC Civil Contingencies	1-5	√		√	
24.3	Work proactively to increase the number of businesses registered to receive flood warnings.	EA	NCC Public Protection NCC Civil Contingencies NCC Fire and Rescue	1-5	√			
24.4	SME best practice in carbon reduction will be profiled through the Northumberland Business Awards and regular newsletter features.	North East Press	FSB NECC NCC Regeneration	1-2	√	√	√	

24.5	Ensure that the impact of carbon costing on delivery networks and the likely impacts on 'just-in-time' delivery systems is understood.	NECC	BENE EEF (MAS)	1-10	√	√	√	
24.6	Businesses are supported to demand carbon reduction through their supply networks and encourage freight travelling by rail.	NCC Regeneration	NCC Procurement	1-5		√	√	
24.7	Explore partnership with Cumbria local authorities and the private sector to develop power self-sufficient mobile eco-pods for business continuity in the case of an emergency disruption. This could include a bid to the EA Local Levy.	NCC Civil Contingen- cies	Envirohomes NCC Regeneration	3-5	√		√	
24.8	The Green Tourism Scheme will be supported and utilised as a method of communication about adaptation.	Northumber- land Tourism		1-2	√	√	√	

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Ambition 25 – Existing local businesses can realise opportunities to diversify, expand and develop a competitive edge in the emerging low carbon economy.

25	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
25.1	Strengthen the awareness and specialist information on a) energy advice b) diversification into the low carbon economy and c) new economic opportunities from low carbon transition through the existing support mechanisms.	BENE	NCC Regeneration NBSL	1-2	√	√	√	
25.2	Encourage further skills development including diversification opportunities for existing trades through events, referrals and provision of local affordable training courses.	NCC Regeneration NCC Employability and Skills	NCC Regeneration NBSL Northumberland College	3-5	√	√	√	
25.3	Proposals to develop a subsidised placement scheme to link existing businesses with recent graduates and trainees from the region's further and higher education institutions will be resumed with pursuit of ESF funding.	Northumber- land Graduate Enterprise Programme	NCC Employability and Skills NREG	1-5			√	
25.4	Develop tourism's competitive edge and hence its contribution to other economic sectors through encouraging new low carbon tourism initiatives which diversify and expand Northumberland's tourism business base as an exemplar of 26.1 and to drive demand for 26.2. This could be explored through the Green Tourism Scheme.	Northumber- land Tourism	NCC Culture AONBs NNPA BENE	1-5	√	√	√	
25.5	Opportunities to strengthen local biomass supply chain markets will be stimulated in association with the RHI and a series of local biomass hubs will be created for the storage and distribution of chips, pellets and logs in partnership with Durham County Council.	Northwoods (RDI)	NCC local services NNPA FC NWT AONB DCC BENE rural advisors	3-5	√	√	√	

25.6	The effects on our marine environment as identified in 14.12 and the impact of climate change on our seas could provide an informative and interesting part of our tourist offer – this could be explored through NWT’s Living Seas Programme.	NWT	NCC Tourism AONB NCC Strategic Transport - FCERM	3-5			√	
25.7	Agricultural colleges, NFU, FC, ConFOR and CLA will raise awareness amongst farmers and land owners about the opportunities for diversification and changes in farming and forestry practice	CLA FC	NNPA NWT FC ConFOR BENE advisors	3-5	√	√	√	
25.8	Develop demonstrations of low carbon and renewable technologies within the farming community (such as anaerobic digestion for fuels and hydrogen-powered tractors linked to renewable hydrogen production).	University of Newcastle Cockle Park	CLA NFU Northumberland College BENE advisors Economic Prosperity Partnership	5-10	√	√	√	
25.9	Utilise expertise from Cockle Park Farm to explore opportunities to establish further anaerobic digestion plants and a good hub and spoke arrangement for capturing a diverse range of local waste streams to maximise local financial benefits. This could be in partnership with EFPF or through CoRE’s identification of community opportunities.	CoRE University of Newcastle Cockle Park		1-5	√	√	√	
25.10	Work with farmers to encourage development of test sites for new crop varieties and species	CLA NFU	Universities of Newcastle and Durham RSA	1-10	√		√	
25.11	Encourage estate and land owners across the county to develop carbon reduction activity and to deploy renewable energy generation.	NNPA	FC Northwoods CLA	1-5	√	√	√	
25.12	Tourism businesses and operators are made aware of the opportunities and encouraged to develop resilience measures in order to maximise new economic opportunities.	Northumberland Tourism	NNPA AONB NCC Culture	1-2	√	√	√	

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Ambition 26 – the development of a low carbon economy will provide new skills development and new business start up and employment opportunities. Our local workforce is skilled to and benefit from future economic opportunities.

26	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
26.1	Develop career pathways information sheets as part of Connexions existing guidance in renewable energy, low carbon technologies and sustainable construction for school leavers.	NCC Employability and Skills	Connexions narec	1-2	√		√	
26.2	Maintain oversight of education, skills and training provision to anticipate and respond to the changing skills needs of the Northumberland economy in relation to low carbon transition linking to STEM.	NCC KS3/4 co-ordinators	Northumberland College	1-10	√		√	
26.3	Agencies which support training and access to employment will collaborate to ensure local people and the disadvantaged are supported to access Northumberland based training and employment opportunities in the low carbon sector. This will provide a key strand for reducing NEET's and tackling worklessness.	NCC Regeneration		1-10	√		√	
26.4	Encourage establishment of a local centre for excellence in renewable energy training in partnership with and sharing facilities with the Narec technology park.	Northumberland College	Narec NCC Employability and Skills	1-10	√	√	√	
26.5	As part of Newcastle Science City promote new manufacturing and engineering opportunities and provide support services to develop entrepreneurship in the low carbon economy. Hold events with schools/colleges to identify and encourage/support potential entrepreneurs.	University of Newcastle Science City	NCC Employability and Skills	1-10	√		√	
26.6	Northumberland County Council will continue to support the uptake of the 'Climate Change Schools Project' in Northumberland. NCC as the LEA should further encourage integration of the new curriculum materials which the project is developing within all Northumberland schools.	NCC Skills, Enterprise and Learning Support	NCC Local Services	1-2	√	√	√	
26.7	Encourage partners active in climate change to develop links with schools to host visits, case studies, placements which encourage and demonstrate employment opportunities and participate in debates, etc to increase public awareness and address locally relevant concerns.	NCC Employability and Skills	NREG	1-5	√	√	√	

Ambition 27 - The low carbon economy and the forecast changes in climate offers opportunities to attract inward investment of new businesses to strengthen existing clusters.

27	Action Detail	Lead	Support Agencies	Time-frame	A	M	E	Progress Update
27.1	Ensure that the inward investment promotion for low carbon businesses adequately serves Northumberland.	LEP	NREG NCC Regeneration	1-10			√	

One of the strengths of having a multi-agency delivery plan is the opportunity to work on complicated activity that requires a number of partners to come together to develop large-scale projects that achieve significant carbon savings. Work package 8 focuses on significant capital projects, which will deliver such opportunities and

provide a step change in activity. These will aim to be progressed through a number of specific financing routes including European Funding, and could include the regional European Investment Bank application being prepared on behalf of the region.

Ambition 28 - Northumberland has a number of large-scale schemes that achieve significant carbon reduction and demonstrate what is possible to achieve.

28	Action Detail	Lead	Support Agencies	Time - frame	A	M	E	Progress Update
28.1	Develop South East Northumberland Housing Growth Point as an exemplar of low carbon development.	NCC Planning Delivery	HCA	1-10	√	√	√	
28.2	New community scale energy systems will be explored at the South East Northumberland Housing Growth Point sites, as part of Low Carbon Blyth and models for community ownership of energy generation will also be considered across the County. The possibility of conducting a retrofit project taking forward the energy efficiency concepts proven in Low Carb Lane for existing housing in these areas will also be explored through CIL/S106.	NCC Planning Delivery - IC	HCA CoRE, NCC Locality Development Team	1-10	√	√	√	
28.3	All new health care buildings in Northumberland will be designed for resilience to extreme weather impacts both in construction and location and minimising carbon emissions. NCC Civil Contingencies will raise concerns (although non-statutory), where appropriate, in connection with PPS25 on new planning applications.	NHS North of Tyne (own buildings)	NCC Civil Contingencies	1-10	√	√		All newly commissioned buildings meet DOH standard of BREEAM Excellent. The proposed new development at Morpeth would meet BREEAM Outstanding
28.4	All new Northumberland schools will be low carbon with aspiration for zero carbon and designed with resilience to extreme weather events paramount.	NCC Schools		1-10				

28.5	Explore delivering packages of energy efficiency/ renewable energy measures in combination to historic protected and 'hard to treat' properties.	Warmzone	NSP (via LCF) NCC Housing NNPA NCC Policy & Research	1-2	√	√	√	The Local Carbon Framework Project is building upon WarmZone's retrofit of standard and 'Hard to Treat' properties – lofts, cavities and solid walls, across the county to begin considering a broader range of products with suitability for listed or otherwise protected buildings.
28.6	Explore the Opportunity to support Holy Island to become a zero carbon demonstration community.	Holy Island Development Trust	NSP (via LCF) AONB	1-5	√	√	√	Through the Local Carbon Framework Programme Holy Island Development Trust is leading a project to explore potential for energy self sufficiency and working with regulatory agencies to explore suitability within the protected designations

Conclusion

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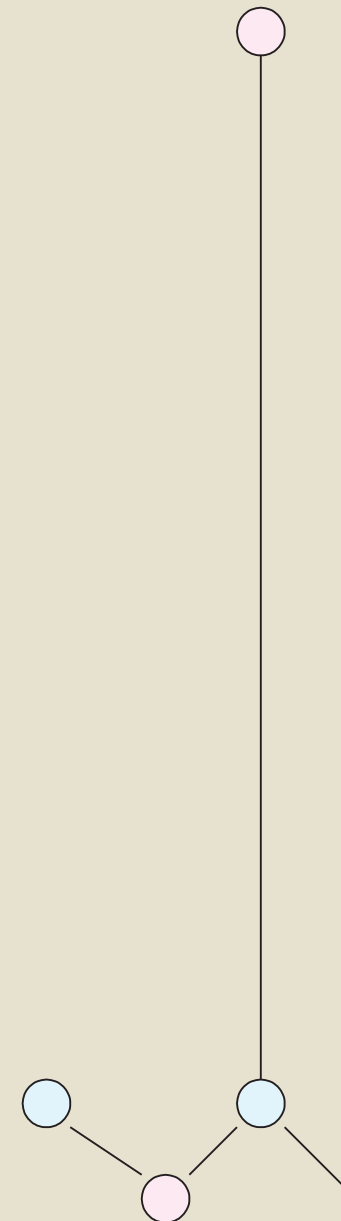
This Delivery Plan presents a large portfolio of activity, clearly all of which cannot be delivered at once. It is intended that the Northumberland Strategic Partnership Leadership Forum will delegate responsibility for prioritising a subset of activity for progression on an annual basis to a dedicated task-and-finish-group and will review progress annually.

Indicative timeframes have been allocated above which have been agreed with the respective delivery partners to guide activity development but as previously stated, this will depend on the availability of resources. Rather than dilute the ambition extending the timeframe to build up resources over a longer period where this provides the significant challenge, has been encouraged.

In such a timeframe it is impossible to predict the changing organisational structures and responsibilities that may occur.

It is therefore important that the plan remains a live and fluid document. It is the expressed intention of those developing the plan that all of the activity identified above will have occurred by 2020; however the achievement of every action will be a success. Far better to identify a large portfolio and deliver three quarters of it than limit the stretch to what is easily achievable, for this would suggest the ambition was not great enough.

In the development of this plan and the discussions undertaken, the importance of organisations establishing climate change as one of their corporate priorities has been stressed, but at the same time it is important not to ignore or underestimate the challenge that this might pose for delivery with respect to tensions with other priorities. It is only by addressing these conflicts that creative solutions for restructuring our approach may be stimulated.



ANEC	Association of North East Councils
ARUP	An independent consultancy who led production of the Economic Implications of Climate Change: A North East England Study
AONB	Area of Outstanding Natural Beauty
BACLIAT	Business Areas Climate Assessment Tool - available through the UK Climate Impacts Programme
BEAT2	The Biomass Environmental Assessment Tool (BEAT2), provided by Defra, the Biomass Energy Centre and the Environment Agency as an aid to assessing the likely environmental impact of a biomass energy project.
BENE	Business Enterprise North East
BIOPICCC	'Built Infrastructure for Older People in Conditions of a Changing Climate' - a 3-year research project by Durham University and Heriot-Watt University to develop strategies to help ensure that the infrastructures and systems supporting the health and social care for older people will be sufficiently resilient to withstand harmful impacts of climate change up to 2050.
BREEAM	'Building Research Establishment Environmental Assessment Method'.
CIL	"Community Infrastructure Levy.
CLA	Country Land Owner's Association
Climate NE	Climate North East
ConFOR	Confederation of Forest Industries
CoRE	Community Renewable Energy
CSM	Community-based Social Marketing
DCC	Durham County Council
DECC	Central UK Government Department for Energy and Climate Change
DEFRA	Central UK Government Department for Environment Farming and Rural Affairs
DM	Development Management - the Local Authority Department for regulating specific planning permission applications
DOH	Central Government Department of Health
DWP	Central Government Department of Work and Pensions
EA	Environment Agency
EEF (MAS)	Engineering Employers Federation and Manufacturing Advisory Service
EFFP	English Food and Farming Partnership
EH	English Heritage
EIB	European Investment Bank
ERDF	European Regional Development Fund
ERIC	Environmental Records Information Centre
ESCo	Energy Services Company
ESF	European Social Fund
EST	Energy Saving Trust
FC	Forestry Commission
FCERM	Flood and Coastal Erosion Risk Management Group
FIT	Feed In Tariffs
FSB	Federation of Small Businesses
FONDT	Federation of Northern Development Trusts
GNE	Groundwork North East
HC+W	Health Care and Wellbeing Board
LCF	Local Carbon Framework Programme – 1 year DECC pilot programme 2010-11

LDF	Local Development Framework
LEA	Local Education Authority
LEP	Local Enterprise Partnership
LGA	Local Government Organisation
LTP	Local Transport Plan
MOD	Ministry of Defence
Narec	National Renewable Energy Centre
NBSL	Northumberland Business Services Ltd
NC+NP AONB	Northumberland Coast and North Pennines Areas of Outstanding Natural Beauty
NCC	Northumberland County Council
NE	Natural England
NECC	North East Chamber of Commerce
NEDL	Northern Electricity Distribution Limited
NEET	'Not in Employment Education or Training'
NFU	National Farmers Union
NHS North of Tyne	NHS North of Tyne –management organisation for the primary care trusts in Newcastle, North Tyneside and Northumberland.
NNC BC	Northumberland County Council Building Control Department
NNPA	Northumberland National Park Authority
Northumbria LRF	Northumbria Local Resilience Forum
NREG	Northumberland Renewable Energy Group
NT	National Trust
NWL	Northumberland Water Limited
NWT	Northumberland Wildlife Trust
PPS 25	Planning Policy Statement 25 - Development and Flood Risk
RELU	Rural Economic Land Use Programme
RHI	Renewable Heat Incentive
RSA	Royal Society for the Encouragement of Arts, Manufactures and Commerce
S106	Section 106 of the Town and Country Planning Act 1990
SENCCAP	South East Northumberland Climate Change Adaptation Pilot led by Natural England.
SME	Small and Medium Enterprise
SSE	Scottish and Southern Electricity
STEM	An collective abbreviation for Science Technology Engineering and Maths subjects
UKCIP09	UK Climate Impacts Projections 09 - projections of future UK climate simulations from climate models and presented through an interactive online portal.
VCS Consortium	Voluntary and Community Sector Consortium
WRAP	Waste and Resources Action Programme
CAN	Community Action Northumberland





Northumberland
Strategic Partnership

2011