



## **LIMESTONE LANDSCAPES PARTNERSHIP**

## **LANDSCAPE CONSERVATION ACTION PLAN**

**A SUBMISSION TO**

**THE HERITAGE LOTTERY FUND**

**LANDSCAPE PARTNERSHIP SCHEME**

**STAGE 2**

**September 2010**



*Making a positive difference to the unique  
environment of the Magnesian Limestone area*

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### EXECUTIVE SUMMARY

Landscapes are formed through the interaction of natural forces and cultural influences. The way people perceive the landscape is an inherent part of how it is valued. It is the relationship between people and place, together with a unique cultural and natural heritage that creates individual identity. The experience and enjoyment of a place is strongly influenced by the landscape setting.

The European Landscape Convention (ELC), ratified by the UK in 2007, underlines that landscape's natural and cultural components form a whole. The Convention strives to maintain and improve landscape quality everywhere, helping the public and institutions recognise both the importance of the landscape, and of working together to take part in decision making.

The extensive area of the East Durham Magnesian Limestone was formed 290 million years ago. During the last 10,000 years, following the last ice age, the cultural influences of people have created a distinctive landscape. The area extends from Hartlepool to South Shields on the north-east coast and extends towards the south west in the vicinity of Newton Aycliffe.

The biodiversity of the area is renowned. Some of the last remaining habitats for rare butterflies live on the magnesian limestone grassland. Important wild bird colonies, pockets of remaining wooded denes and wetlands combine to give the area its distinctiveness.

Where the Magnesian Limestone rocks occur in cliffs and sea stacks on the coast, unique assemblages of rock contribute to form spectacular seascapes. Complex rock formations and textures enrich the many recreational opportunities. Disused quarries have become valuable habitats for grassland communities. Working quarries provide opportunities to understand the importance of minerals to our society, and the geological connections to a very different past. The cannonball rock seen in and around Sunderland is unique to Britain.

The area is rich in evidence of history over time stretching back to the Neolithic Period with many archaeological finds and several deserted medieval villages. Over the last 200 years industrial and urban development through mining and quarrying has seen the landscape change from one of quiet rural tranquillity to a pattern of urban settlements and densely populated colliery villages. In and around these settlements a rural farming landscape ensues.

During the development phase, the Heritage Lottery Fund Landscape Partnership Scheme supported a series of commissions on Biodiversity, Geodiversity, Historic Environment and Learning, Access and Community Engagement. This work has led to the *Limestone Landscapes Partnership's* Landscape Conservation Action Plan for the Durham Magnesian Limestone Plateau.

Between July 2009 and September 2010, the *Limestone Landscapes Task Group*, representing local and regional organisations, worked with the five local authorities that administer land in the area to develop the project and prepare for the three year HLF funded LPS scheme.

The partnership has considered many potential initiatives - too many to be funded within the first phase, and carefully considered selection of the individual projects has had to take place. These projects are interlinked. They bring the many strands of biodiversity, geodiversity and historic environment together under the four programme themes of conservation and restoration, community engagement, access and learning, and training and skills.

Thus the programme is not just a collection of projects but a series of related work programmes that will result in benefits to the communities and the landscape as a whole. Many opportunities will exist for the residents to become involved in the 25 projects that have been put forward. They range from helping to conserve the grassland, working with a historic specialist to create a village atlas, developing green exercise programmes and opportunities to learn traditional skills or about the complex geodiversity and biodiversity of the area. An annual Limestone Festival will celebrate the unique landscape and quarries will be opened for schools and communities. It is hoped that this work is just the beginning and further programmes of work will continue beyond the life of the HLF funded scheme.

Limestone Landscape Partnership  
September 2010  
[www.limestonelandscapes.info](http://www.limestonelandscapes.info)

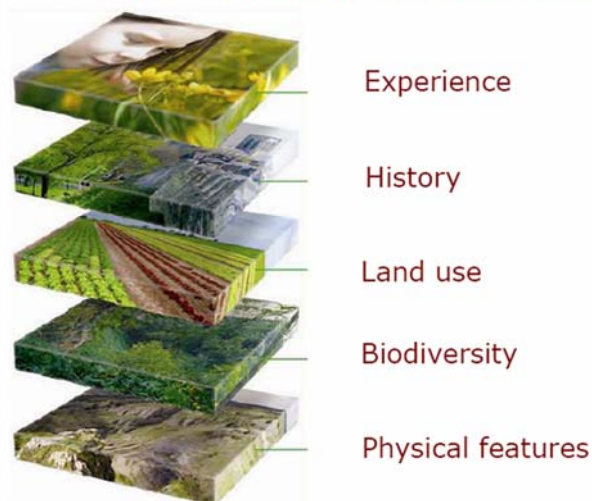
## INTRODUCTION

### LANDSCAPE AS AN INTEGRATING FRAMEWORK FOR DELIVERY

Landscapes are the result of the action and interaction of natural (geodiversity, climate and biodiversity) and cultural influences (historical and current land uses, settlement patterns and human interventions). People's perceptions are an inherent part of how landscape and its character and qualities are experienced and valued.

Landscapes provide both the physical setting for everyday life, habitats for nature and wildlife as well as affecting the well being and quality of life of individuals and society as a whole. They are important expressions of the relationship between people and place, of our cultural and natural heritage and our identity. People's experience and enjoyment of the natural environment is strongly influenced by the landscape setting. Our landscapes include urban, rural and coastal areas, and, where they extend out from our coasts into the marine environment, seascapes.

#### What makes up landscape?



The character, quality and condition of our landscapes is influenced by natural forces, such as climate change, as well as agriculture and land use, resource management and development in response to society's needs and demands. The operation of the spatial planning system and the policy and regulatory frameworks governing land management and use of

the sea, are key mechanisms for enabling the positive conservation and enhancement of our landscapes.

The European Landscape Convention (ELC) is another key driver. The ELC is the first international treaty devoted exclusively to the management, protection and planning of all landscapes in Europe. It underlines that landscape forms a whole, whose natural and cultural components should be considered together, not separately. It seeks to maintain and improve landscape quality everywhere and bring the public, institutions and local and regional authorities to recognise the value and importance of landscape and to take part in related public decisions.

The Government has signed up to the Convention, which came into effect in the UK in March 2007. It aims to embed further the Convention's intent and measures within UK policy reviews and through the ongoing practical management of landscapes. The Government's signing of the ELC demonstrates that England's landscapes matter for the health, wealth and well-being of society, for our cultural identity and for the diverse habitats that exist as part of them.

The ELC proposes that the management, protection and planning of landscapes "must become a mainstream political concern", entailing rights and responsibilities for everyone, not just governments. It states that the importance, qualities and functions of all landscape should be further integrated into spatial planning and land management sectors as well as other sectors. It also states that landscape provides a spatial framework, applicable at different geographic scales, where ecology, landscape character, cultural and aesthetic values, and the ecosystem goods and services that landscapes provide, can be brought together and support an integrated approach to decision making.

The ELC implementation guidelines, prepared by the Council of Europe, presupposes that a transition needs to take place from one focusing on 'outstanding' areas to one that focuses on 'the quality of all living surroundings'. The development of landscape character approaches over the last 20 years in England has helped move towards this broader objective.



## LIMESTONE LANDSCAPES

This is the Landscape Conservation Action Plan for the Limestone Landscapes area written for the submission of Stage 2 Heritage Lottery Fund Landscape Partnerships Scheme.

It has been written by Ken Bradshaw (Limestone Landscapes Development Officer), Sue Mullinger (Landscape Partnerships Officer) Durham County Council (DCC) and Tony Devos (Senior Specialist, Natural England) with support from a wide range of officers and organisations. The task group of the Partnership have given many hours of dedicated time to the development:

Name	Organisation	Expertise
Niall Benson	Durham Heritage Coast	Chair of Partnership Task Group
Niall Hammond	Architectural and Archaeological Society of Durham and Northumberland	Historic Environment
Dr David Mason	Durham County Council	Archaeology
Julie Form	Groundwork NE	Community and Regeneration Sector
Mike Ogden	Durham County Council	Green Infrastructure
Shonah Dobson	Durham Biodiversity Partnership	Biodiversity
Ged Lawson	Durham County Council	Landscape Character Assessment
Jim Cokill	Durham Wildlife Trust	Climate Change, Adaptation
Peter Leeson	Woodland Trust	Woodland enhancement
Sue Mulliger	Durham County Council	Landscape Partnerships
Tony Devos	Natural England	Landscape Partnerships and Volunteers

Our lead consultants who have produced strategic reports to help shape the development of the plan:

**Durham Wildlife Services**  
**Archaeo-Environment**  
**plb ltd with associates Countryside Training and 3Ps**  
**British Geological Survey – David Lawrence**

Officers from the five local authorities have helped shape this document:

**South Tyneside Council**  
**City of Sunderland Council**

**Hartlepool Borough Council**

**Darlington Borough Council**

**Durham County Council**

The plan has been created during the developmental period September 2009 – September 2010. The following papers have focussed the development of this plan and are attachments to this document:

## **Geodiversity:**

Limestone Landscapes – A geodiversity audit and action plan for the Durham Magnesian Limestone Plateau, British Geological Survey, *BGS*, 2009

Limestone Landscapes – Geodiversity Action Plan 2010-2015, *BGS*, 2009

## **Biodiversity:**

A Proposed Biodiversity Work Program for the Limestone Landscapes- 2010-2015 *Durham Wildlife Services*, 2010

## **Historic Environment:**

Historic Environment Audit and Action Plan *Archaeo-Environment*, June 2009

Historic environment action plan *Archaeo-Environment*, February 2010

Historic Buildings and Structures of Local Importance, Value and Character *Archaeo-Environment*, July 2010

## **LACE (Learning, Access and Community Engagement )**

Limestone Landscapes Training and Education project consultation Simon Lees (Countryside Training)

Limestone Landscapes Access Consultation 3Ps, Roger Newton

LACE plan *plb ltd*, June 2010 Amanda Peacock et al

## **Access:**

Audit of Access and Greenspaces for the Durham Magnesian Limestone Plateau *The Access Company* 2009

## **LIMESTONE LANDSCAPES AREA**

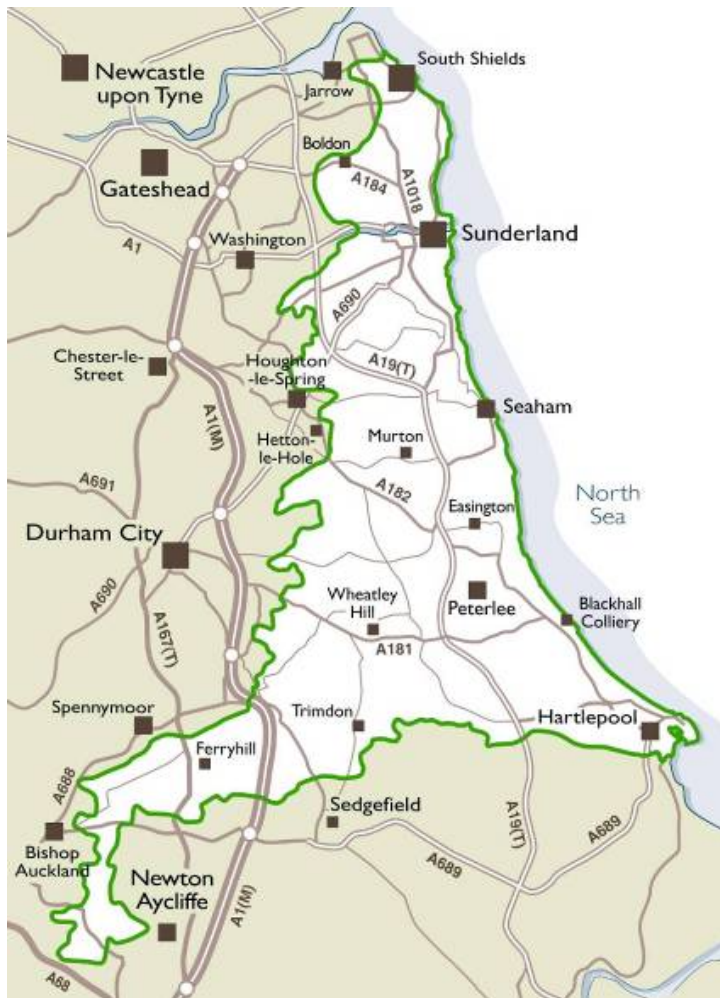
The area of the Limestone Landscapes runs from South Shields in the north, along the coast to Hartlepool and creates a rough triangular shape that ends in the south–west at Newton Aycliffe. It covers 5 local authority areas: South Tyneside, Sunderland, Hartlepool, Durham and Darlington and the area is identified in **Figure 1** (map of LLP refined boundary and LA areas).

The project will concentrate on the rural landscape of the area and avoid the large built-up areas of Peterlee, Seaham, Sunderland and Newton Aycliffe. However, it does recognise that much of the audience will come

from these urban locations. However, some projects will act as a signpost to the many sites of the area.

Initial boundaries from Natural England indicated a total area of 454 km<sup>2</sup> which has since been refined using LCA to 364 km<sup>2</sup>. This refinement was necessary as the initial boundary was rough and did not recognise the precise spur and vale topography that is prevalent on the west escarpment slopes. The focus for much of the work will be in the rural locations so that when the urban areas are removed, there is a project area of 207 km<sup>2</sup>.

**Figure 1 Map of Limestones Landscapes Area**



This plan sets out to highlight the work that is proposed during Stage Two delivery of the HLF funded LPS in 2011- 2014 for the Limestone Landscapes area. The work identified has been partly due to the efforts of officers of LAs and other organisations to help conserve and restore the area and also to the pioneering work of the Landscape Character Assessment for County Durham and the surrounding areas that make up the Limestone Landscapes National Character Area.

In developing this submission and building a cohesive, inclusive Partnership, the five local authorities have been working to achieve cabinet approval, member support and officer involvement on many levels. Other regional organisations have also been asked for their approval. For a full list of organisations, please see **Appendix 1**.

## SCHEME DESCRIPTION

In Section 1, there is an overview of the Limestone Landscapes which utilises the work of the Landscape Character Assessment and the heritage that is found within. A major section on heritage details the biodiversity, geodiversity and the historic environment whilst the cultural associations champion the important links between people and place. Development of the landscape over time identifies how far it has changed in the 10,000 years since the last ice age. The management information explains which strategies exist for managing the Partnership area, legislation, land ownership and mechanisms.

Section 2, tells the story of the Limestone Landscapes and the significance it has regionally, nationally and internationally.

Section 3, identifies Risk and Opportunities and the plan looks at the possibilities for the natural and historic environment and the potential problems that may entail.

Section 4 showcases how Limestone Landscapes will focus on the overall aims and objectives of the plan and how it will be able to be used as a management tool.

Section 5 is the scheme plan and costs which will identify the projects brought forward for the scheme implementation in 2011. The methods for choosing projects and the changes that have been made since the stage one application are highlighted.

Sustainability in Section 6 will outline how we intend to continue the Partnership after HLF funding has finished including the innovative Limestone Landscapes Fund. The final two sections complete the plan on monitoring and evaluation, how the plan was adopted and how it will be reviewed.

### GAPS AND LIMITATIONS

Commissioning our consultants to work on the three areas of biodiversity, geodiversity and historic environment has led to all-inclusive reports and consequently is very comprehensive.

The Learning, Access and Community Engagement has, however, proved difficult due to the large number of communities and community groups, huge size of the area (over 207 sq km) and the lack of resources (time and money) that could be devoted to this work. The nature of many communities, in our experience, is that a presentation/ participatory activity could have taken place every week and still there would be many people who would not have come in to contact with the Partnership's work. Much further work is needed on community engagement for greater ownership and acceptance. This development will be a major focus for the core team in the first year of the project.

Creating a fully inclusive Partnership takes time and effort and whether at a small ward scale or landscape-scale across all five authorities is never an easy task. Building trust, cohesion and a united vision is a slow process and there are always going to be positive and negative minded people.

The Partnership is quite clear that this is just the beginning of a process to engage communities and member support. Further involvement and engagement will happen between the development phase and delivery start. In the delivery phase, an Interpretation and Communications Officer will lead on this work.

## 1.0 UNDERSTANDING THE LIMESTONE LANDSCAPES

### 1.1 Landscape Character Assessment

The Limestone Landscapes is based on the whole of the Durham Magnesian Limestone Plateau National Character Area (formerly Joint Character Area) and is number 15 in Natural England's directory of 159 National Character Areas<sup>1</sup>. The key characteristics of the Durham Magnesian Limestone Plateau are:

- \* Gently undulating low upland plateau, of open, predominantly arable, farmland dipping southward and eastward, with incised denes cut into coastal edge on the east.
- \* Clearly defined west-facing escarpment, dissected by minor streams, with remnant broadleaved woodland, scrub and species-rich limestone grassland on steeper slopes.



*Limestone Escarpment*

- \* Widespread industrial development, with large scale active and disused quarries and landfill sites, often prominent on the escarpment, and areas of derelict, under-used or recently restored colliery land.
- \* Varied coastal scenery of low cliffs, bays and headlands, rich in wildlife, although despoiled in places by former extensive dumping of colliery waste on beaches and foreshores.

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<sup>1</sup> [http://www.naturalengland.org.uk/Images/jca15\\_tcm6-5234.pdf](http://www.naturalengland.org.uk/Images/jca15_tcm6-5234.pdf)

- \* Strong urban development, dominated by Sunderland and by larger mining towns and villages towards the north and east, contrasting with small villages in rural areas.
- \* A19 corridor, railway lines and other infrastructure elements.

The Limestone Landscapes Partnership area is covered by a number of landscape character assessments (LCA) produced at different scales, at different times, by different agencies and using different methodologies. A detailed analysis of work done to date is included in **Appendix 2** 'Limestone Landscapes Character Framework –Consultation Draft August 2010'. The purpose of this Landscape Framework is to provide a unified approach to describing, classifying and analysing landscape character that can be used with consistency across the project area in the work of the Partnership.

The framework has been developed by reviewing existing landscape character assessments covering the Magnesian Limestone Plateau National Character Area. It is not in itself a landscape character assessment, involving detailed field work and stakeholder consultation, but rather a desk-top review of existing LCA drawing on the material they contain.

In classifying the landscape two types of units can be identified:

**Landscape Character Types** are landscapes with broadly similar patterns of geology, soils, vegetation, land use, settlement and field patterns. Landscapes belonging to a particular type may be found in many different places.

**Landscape Character Areas** are unique areas - geographically discrete examples of a particular landscape type. They may share common characteristics with other landscapes belonging to the same type, but each has its own unique individual identity and sense of place.

The consultative framework, gives an overview of the work done to date in by the five local authorities and other studies by Natural England and the Great North Forest.

The Framework proposes 6 broad landscape types within the NCA 15 in order to achieve best fit with national, regional and local LCA. They are:

- Limestone Escarpment
- Clay Plateau
- Coastal Limestone Plateau



- Limestone Coastal Plain
- Limestone Coast
- Limestone Gorge

## Broad Landscape Types

### Limestone Escarpment

#### Key characteristics

- A low escarpment, deeply dissected in places to form short valleys between well-defined spurs or low rounded hills.
- Gently rounded topography of soft magnesian limestones covered in places by glacial drift.
- Occasional steep-sided incised valleys and glacial melt-water channels.
- Thin calcareous soils over limestones with heavier clays on boulder clay and brown earths on glacial sands and gravels.
- Open, predominantly arable farmland, with pasture on steeper slopes and pony paddocks close to settlement edges
- Remnants of limestone grassland on the thin soils of scarp slopes, spurs, ridge tops and incised valleys.
- Varied limestone plant communities in abandoned limestone quarries and road cuttings
- Semi-regular patterns of medium and large-scale fields bounded by low, clipped hawthorn hedges which are often neglected or gappy.
- Few trees – thinly scattered hedgerow ash and sycamore
- Sparsely wooded – ancient ash woodlands and areas of hawthorn scrub on steep spurs, vale-sides and denes.
- Occasional small 'green' villages on ridge tops and valley floors. Scattered mining towns and villages and larger urban areas in the north
- Large limestone quarries, some in use as landfill sites, in prominent locations on ridges and spurs.
- Tracts of reclaimed land restored to agriculture, forestry or recreational uses.
- A visually open landscape with panoramic views across the surrounding lowlands and urban areas.
- Crossed by major roads, often in prominent cuttings with exposed limestone faces, and by a network of quiet country lanes.
- Rural in character with scattered isolated farms in places but with a semi-rural or urban fringe quality in settled areas.
- Wind turbines and overhead services are prominent on the skyline in places.

### Clay Plateau

#### Key characteristics

- Low plateau of flat, gently rolling or undulating terrain.

- Soft magnesian limestones are covered by a thick mantle of boulder clay.
- Heavy, seasonally waterlogged clay soils.
- Predominantly arable farmland - mostly cereals and oilseed rape –mixed in places with improved pasture and pony paddocks
- Regular or semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- Few trees – thinly scattered hedgerow ash, oak and sycamore.
- Sparsely wooded – occasional small broadleaved woods and larger conifer plantations.
- Scattered mining villages and larger urban areas connected by a well developed network of busy roads.
- Wind turbines, telecommunications masts and pylons frequently feature on the skyline.
- Areas of derelict colliery land, reclaimed land and old clay pits.
- Abandoned railway lines, many in use as cycleways.
- A visually open landscape, broad in scale, with a semi-rural or urban fringe quality in places.

### Coastal Limestone Plateau

#### Key characteristics

- Low coastal plateau of rolling or undulating terrain, incised by narrow steep-sided denes, falling gradually to the coast
- Gently rounded topography of soft magnesian and shell limestones covered in places by glacial drift of boulder clay, sands and gravels.
- Occasional low landmark hills.
- Heavy, seasonally waterlogged clay soils and lighter brown earths.
- Predominantly arable farmland of cereals and oilseed rape.
- Semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- An open landscape exposed to the sea with few trees or woodlands.
- Ancient ash woods in sheltered denes.
- Large mining settlements connected by a well-developed network of busy roads.
- Large active, abandoned or dormant limestone quarries are notable features locally.
- Scattered older agricultural 'green' villages connected by narrow winding lanes.
- Occasional areas of parkland and estate farmland rich in hedgerow trees.
- A visually open landscape, broad in scale but with spaces defined by the rolling terrain.
- The sea is often visible forming the eastern horizon.
- A semi-rural or urban fringe quality in places.

### Limestone Coastal Plain

#### Key characteristics

- Low coastal plain of undulating or rolling terrain incised locally by narrow denes
- Magnesian limestones are largely overlain by glacial drift of boulder clay, sands and gravels.
- Heavy, seasonally waterlogged clay soils and lighter brown earths.
- Predominantly arable farmland of cereals and oilseed rape.
- Semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- An open landscape exposed to the sea with few trees.
- Ancient oak and ash dene woodlands and scattered plantations.
- Large coastal settlements connected by a well-developed network of busy roads.
- Scattered older agricultural 'green' villages connected by narrow winding lanes.
- A visually open landscape, broad in scale but with spaces defined by the rolling terrain.
- Occasional active or abandoned limestone quarries.
- Crossed by major roads and by a network of quiet country lanes.
- Wind turbines and overhead services are prominent on the skyline in places.
- The sea is often visible forming the eastern horizon.
- A predominantly rural landscape with a semi-rural or urban fringe quality in places.



*Beacon Point © Andrew Curtis*

### Limestone Coast

#### Key characteristics

- Varied coast of shallow bays and headlands.

- Cliffs of pale magnesian limestone with crests of boulder clay, occasional caves and stacks.
- Shallow gills cut down into the cliff-top boulder clay. Larger denes breach the limestone cliffs.
- Sand or shingle beaches and limestone rock platforms.
- Localised raised beaches of colliery wastes.
- Developed in places with sea-front promenades and recreational development, working ports and harbours.
- Gently rolling cliff-top farmland of open arable fields or rough coastal grassland.
- Varied grassland flora – red fescue, sea plantain, and bloody cranesbill.
- Patches of wind-shaped blackthorn scrub with occasional hazel and juniper on clay slopes and cliff top denes.
- Ancient woodlands of ash, oak, wych elm and yew in deeper sheltered dene-mouths.
- Localised sand dunes with marram grass, sea couch and red fescue.
- A narrow coastal strip often defined inland by settlement edges, coastal roads or railway lines.
- Localised areas of recently reclaimed colliery land.
- A visually open landscape with extensive views out across the North Sea.
- A natural coastline heavily influenced by urban development and damaged in places by colliery workings.

### Limestone River Gorge

#### Key characteristics

- A shallow gorge crossing the limestone plateau.
- Moderate slopes made up of glacial drift with occasional outcrops of limestone in cliffs, quarries and cuttings.
- The natural topography is modified in places by urban and industrial development, roads, railways and riverside engineering.
- A heavily urbanised river corridor: a mixture of residential, industrial and commercial development with areas of parkland, woodland and disused land.
- Well wooded in the west becoming progressively less wooded towards the city centre.
- Woodlands are a mixture of secondary semi-natural woodlands and scrub on neglected or inaccessible land, and structure planting associated with business parks, land reclamation and amenity planting schemes.
- Disused or neglected land and semi-natural riverside woods contain a varied and dynamic mosaic of brown-field habitats.
- An important transport corridor bounded by major roads and railway lines with landmark bridges.
- An open landscape with long views up and down the river but locally more enclosed and sheltered on the river bank.

- A landscape of rapid ongoing change.
- A strong industrial heritage of heavy industry and ship building still evident in places.
- A visually complex, often confused and incoherent landscape with an urban fringe character and neglected appearance in places, but also exciting and dramatic.
- The river bank has limited vehicular access and good pedestrian and cycling access and can be tranquil in contrast to the nearby City centre.

The consultative framework gives a further discussion of the six proposed areas and highlights trends, pressures and issues followed by ideal objectives that the Partnership could follow. In appendix 2, a series of maps illustrates the work to date and the proposed areas.

## 1.2 Context

The location of the Limestone Landscapes can be seen in **Figure 1** being surrounded by South Shields and the Tyne in the north, the Tees Valley and Hartlepool in the south and the Durham coalfields to the west.

Durham Cathedral and its castle can be seen from various locations on the Limestone Escarpment and form important vistas. The River Wear has a major influence through from the west to the east, flowing into the North Sea at Sunderland and Roker, creating some significant geodiversity sites such as Claxheugh Rock.

This scheme was chosen following a feasibility study commissioned by County Durham Environment Partnership (CDEP) and Natural England, supported by the North East Environment Forum, in 2007. The report concluded that the area is particularly suitable for landscape delivery because:

- ✱ Only a small proportion of the area is covered by any type of designation and has been comparatively overlooked by statutory bodies.
- ✱ Magnesian Limestone grassland is rare and unique to the North East. Although most grassland areas are designated as Sites of Special Scientific Interest, the resource is reduced and highly fragmented. This isolation makes it vulnerable to many pressures that can lead to its piecemeal loss. Protecting and enhancing this grassland will be possible through appropriate spatial planning where important areas can be linked – combining habitat creation with the concept of connectivity.
- ✱ The fragmented nature of key sites and structure means that many areas will not have qualified for significant grants such as Higher Level Stewardship (HLS).
- ✱ Although there are and have been a number of partnerships of proven worth in the area, they have different roles and geographical coverage.
- ✱ Some are short-lived due to the funding structures. This partnership aims to secure longevity through the recently established Limestone Landscapes Fund enabling funds to be distributed to relevant projects across the area.
- ✱ Administrative boundaries can get in the way of some environmental projects – particularly those related to the character of the landscape. National Character Areas reflect both the bio-

geography of the region and cultural patterns. They are independent of administrative boundaries and provide a robust basis for long term environmental planning.

- \* The partnership is 'future-proof' meaning that it is not based on administrative boundaries or time limited grant scheme.

The feasibility report found that without a major injection of resources, the character of this special landscape will erode further and many of its attributes reduced and lost. Commissioned reports show that many habitats such as rare grassland communities or semi-natural woodlands and hedgerow networks along with the species they support are continually under threat and will eventually be lost. There is an urgent need to gather information on archaeological and built heritage to find out what is important to the area and its communities and start a programme of works before further loss and damage occurs. Geodiversity interest will continue to decline and links to fascinating periods of social, economic and cultural history lost.

Existing gaps in green infrastructure, interpretative and educational provision means that these important areas of heritage, tranquillity and beauty can never be fully appreciated, understood and used without improvements to emotional and physical accessibility.

## 1.3 Limestone Landscapes Heritage

The limestone landscapes area has a long and interesting history of agriculture, industry and mineral extraction, and it is valued for its character by people who live there and people who visit. The area has the largest amount of a nationally rare grassland habitat, the Magnesian Limestone grassland.

However, the area has relatively little protection. It is a landscape that has been subject to a crude exploitation of minerals, key habitats and species have been declining over many years, culminating in substantial ecological and visual damage caused by coal mining, quarrying and waste disposal in former quarries.

Over the last decade, a number of projects have been initiated following belated recognition of its unique importance. However, these have been limited geographically and financially and there is much more work to do.

### 1.3.1 Biodiversity

The biodiversity of the Magnesian Limestone is without equal, supporting a large range of uncommon plants and animals and the grassland that grows there is home to two-thirds of the UK resource. Because of its internationally recognised importance, it can be seen as a jewel in the crown of the region's biodiversity.

There are 52 nationally important Sites of Special Scientific Interest and over 200 Local Sites. Four of these are designated as a National Nature Reserve, all in County Durham:

1. Castle Eden Dene
2. Thrislington
3. Cassop Vale
4. Durham Coast

Three of these NNRs are of European Importance and designated Special Areas for Conservation (SAC). Sections of the coast are also of European significance for birds and are designated Special Protection Areas (SPA).

In **Appendix 3**, a list of rare and endangered species of plants and animals can be found with an indication of current status. Magnesian Limestone grassland is principally of ecological value because of its rich flora and invertebrate fauna. Amongst the scarce plant species to be found within the 'classic' sward, are: Dark-red Helleborine (*Epipactis atrorubens*), Bird's-eye Primrose (*Primula farinosa*), Blue-moor Grass (*Sesleria caerulea*), Purple Milk-vetch (*Astragalus danicus*) and Round-leaved Wintergreen (*Pyrola minor*). Common Rockrose (*Helianthemum nummularium*) is very important, being the food plant of the caterpillar of the Northern Brown Argus butterfly and also a rare moth, the least minor, which flies in the day time. The Northern Brown Argus is a member of the blue family and is restricted to a few sites in Durham where the common rockrose is abundant.





Bee Orchid © [www.northeastwildlife.co.uk](http://www.northeastwildlife.co.uk); Blue Moor Grass;  
Northern Brown Argus © Mary & Angus Hogg; Common Rock Rose © Anne Burgess

There are very few original areas of Magnesian Limestone grassland, though those that survive are mostly protected within Sites of Special Scientific Interest (SSSI). Secondary grasslands are more numerous and are important, particularly here they have originated from quarrying.

Woodlands are found in the coastal denes where farming was impractical due to the steep-sides. Here, many of the British native trees and plants are found such as Yew, Small-leaved lime, shrubs such as Spindle and Spurge Laurel and flowers such as Lily of the Valley, Bird's Nest Orchid and Herb Paris.

In addition to the Northern Brown Argus, Great Crested Newt (*Triturus cristatus*) and Glow Worm (*Lampyris noctiluca*) are notable. The great crested newt, is an amphibian that is listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994, (Regulation 38) and Schedule 5 of the Wildlife and Countryside Act 1981. The glow worm is a type of beetle that feeds upon snails and its name is given to the light that the female emits at night in summer to attract mates. It is only found in two locations.

At the Coastal NNR, there is an important site for breeding Little Tern at Crimdon, and large numbers of wintering Purple Sandpiper feed on the foreshore. Sanderling, Turnstone and Knot also use the site for feeding and roosting in winter. The Durham coastline comprises striking limestone

cliffs, headlands and beaches. Glacial meltwaters have carved out gills and denes along its length. For the most part the limestone is over-capped with boulder clay deposits. Wetter areas are home to the rare Bird's-eye Primrose and Round-Leaved Wintergreen. Where the overlying clay soils are thicker and dilute the effect of the underlying limestone, species rich neutral grassland thrives. Sand dune flora adds to the diversity of the reserve, with this habitat supporting nationally scarce species such as sea barley and burnt orchid.

In the past the Durham Coast has been disturbed by a century of colliery waste dumping on the cliff tops and beaches. This stopped with the closure of the coal pits in the early 1990s and the action of the sea has done much to restore the spoil-covered beaches. Today the main threats to the reserve are coastal erosion and scrub invasion of the cliff-top grasslands.

To maintain the flora and fauna of this remarkable coastline, encroaching scrub, tall herbs and bracken need active management.

A regeneration project called 'Turning the Tide' secured a buffer strip along much of the coastline in the 1990s, turning arable fields to grassland. As well as providing protection against fertiliser run-off, the hope is that the limestone flora will eventually colonise this strip resulting in permanent grassland.



*Coastal Grassland near Horden © Graham Scarborough*

Following successful completion of Turning the Tide, in 2003, the Durham Heritage Coast partnership was formed. The Heritage Coast is tasked with protecting and enhancing the landscape, nature conservation interest and access to the coast and building on the level of involvement of local communities in future decision-making.

### 1.3.2 Geodiversity

The Permian aged rocks (290 million years old) of the Yellow Sands, fossil-rich Marl Slate, and Magnesian Limestone formations that are exposed in natural denes, cliffs, quarries and road cuttings, are of considerable scientific and educational interest due to the rare, or even unique fossils, strata and features. In recognition of the national and international importance of the geodiversity of the area from the fossils, minerals and rocks through to the geological process that are evident in many of the natural exposures, many sites have been designated as geological SSSIs including Blackhall Rocks, Ford Quarry and Fulwell Hills Quarry and the coastal cliffs of Trow Point to Whitburn Steel. In total, the area contains 7 nationally important Geological / Geomorphological Sites of Special Scientific Interest and 22 Local Sites.

The area has been visited by eminent geologists including one of the founders of modern geology, Adam Sedgwick in 1829. They were enticed by the extraordinary concretionary limestone of the Roker Formation which contain 'the most remarkable patterns in sedimentary rocks anywhere in the world'. These are the 'Canon-ball' rocks which have unusual spherical concretions of limestone and vary in diameter between 0.1 and at least 20 cm. Spectacular sections of this rock are exposed at Marsden Old Quarry LNR and on the coast at Hendon, south of Sunderland.



*Cannonball Rocks Fulwell*

Elsewhere, fossilised fish and plants can be found in the Marl Slate Formation. Permian fossil fish faunas are very limited in number and distribution world wide. It was at this time – for the first time in the history of the Earth – that animals with backbones took to the air. The only British

example of this creature, a hollow-tailed reptile, or *Coelurosauravus*, was found at Hetton-le-Hole, on display in Sunderland Museum.



*Fossil fish –prevalent in the Marl slate © G. Easterbrook*

### 1.3.3 Historic Environment

#### 1.3.3.1 Buildings

The Permian rocks of the area including the Magnesian Limestone and several sandstones have for centuries provided a suitable building stone and until the mid 19th century, most buildings would have been constructed from local stone. Good examples of this can be seen in many villages situated around characteristic greens dating back to the 12<sup>th</sup> century, with exceptional building examples at Castle Eden and Roker Church. Elsewhere it can be seen in older buildings where it is pock-marked due to its ability to erode easily. To protect the stone originally, many buildings were lime-washed or rendered. The advent of the railways enabled large movements of bulky materials such as stone, slate etc and therefore the vernacular nature of buildings changed.

Notable buildings, include the 13th century manor house of Seaton Holme (below), now home to the offices of Groundwork. Other examples of buildings are the ruined towers of Ludworth and Daldon (page 23), both being parts of medieval houses and built from local stone and would have built for defensive purposes and probably to show off their wealth.



*Seaton Holme © Chris Heaton*

The Bishops and Priors of Durham have influenced some other major buildings with the Hallgarth at Pitlington (now a hotel) and Bishop Middleham Palace (now ruined).

Thomas Hawksley for the Sunderland and South Shields Water Company in the mid 19th century designed a series of dramatic gothic and italianate buildings down the coast of the Limestone Landscapes and the Grade II listed pumping stations at Ryhope and Cleadon are surviving examples.



The development of the coal industry led to wide spread use of red-brick to build the many terraced housing and social/recreation/commercial buildings in the colliery villages. The bricks were made from ground-up shale and nearly every pit would have had a brick works, with the name stamped on them. Today, brick is probably the most common building material. An unusual example of the use of brick is where boundary walls of local stone have had to be patched up and brick is used as a cheap alternative. Initially striking in its appearance, this settles in well over the years and gives the area distinctive character.

As part of the development work the Partnership commissioned Archaeo-Environment to identify historic buildings and structures across the Magnesian Limestone of East Durham which are valued by local communities and individuals but which have no formal legal protection such as designation as a listed building. Its aims were to engage the public in thinking about their built heritage and provide the Limestone Landscapes Partnership with additional information to inform pro-active project work.



*Cast iron Fingerpost, Westerton*

In total the report identifies several broad types of building such as war and mining memorials and the distinctive social housing provided by the Durham Aged Miners Housing Association as well as a specific group of 64 buildings, structures and landscapes which currently have no specific protection such as listing and with one or two possible exceptions would not meet the criteria to be given listed status. Nevertheless they are either valued by their local community or can clearly be seen to have a value in their own right as well as a contribution to the limestone landscapes. The report concludes with a number of recommendations regarding extending or creating conservation areas to reflect the mining heritage of the area, further specific local lists, investigation of specific buildings and engaging communities with their built heritage.

The report fed into the Historic Environment Action Plan and consequently the projects that have been brought forward for support under this scheme.

### 1.3.3.2 Archaeology

For over 150 years, the history and archaeology of the area has been studied, conserved and interpreted and there is strong evidence that the area has been settled since the Mesolithic times, if not the Palaeolithic. There are notable Bronze Age ritual sites, Iron Age and Romano-British settlement associated with the limestone outcrops. It was densely settled in the medieval period leaving a legacy of shrunken and abandoned medieval settlements and fossilised field systems. It is particularly rich in industrial remains associated with coal mining and railways and some notable coastal defence features from World War Two. There are 25 nationally important Scheduled Ancient Monuments (SAM) and a large number of listed buildings and structures with features representing all periods of the area's long and varied history.



*Mesolithic harpoon from Whitburn (Tyne and Wear). © Museum of Antiquities, Newcastle.*

Table 1 gives an overview of the significant finds from the project area for each historical period

A list of significant finds/sites/events from archaeological digs is presented here taking at least one find from each period

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### 1.3.3.3 Industrial Heritage

The area has long been associated with its Permian aged rocks and the region is dotted with limestone built edifices of considerable age, dry stone walls and both remnant and active quarries. Sand from the Yellow Permian sands, building stone, limestone for lime-burning and high grade lime for the chemical industry have been extracted for many years and will continue to do so in the future. Throughout the area there are many lime kilns from the smaller localised furnaces at Hawthorn to the massive industrial kilns that are seen at Marsden (see photo below). Many of these developed in tandem with the coal industry, coal being an essential fuel for the kilns.



*Marsden's lime kilns*

The 19th century saw an unprecedented boom to the industrialisation of the region. The first successful sinking of a coal shaft through the Magnesian Limestone was at Hetton Lyons colliery in 1821. Coupled with the advent of the steam railways that criss-crossed the region, including an eight mile railway connecting Hetton to Sunderland followed by Lord Londonderry's Seaham Dock, in 1828, the landscape became irrevocably changed. As more shafts were sunk, pits demanded larger numbers of men to work the seams resulting in bigger, concentrated settlements. Many of these new communities were centred round an older core, for example Cornforth village, providing the area with its distinctive settlement pattern of stone ancient agricultural 'green' villages, neighboured by red brick colliery villages.

### Quarrying and Mining

As quarrying became a larger scale industry, hamlets and villages grew up around the quarries, such as Marsden<sup>2</sup>, where a large village of 700 lived in 13 streets. The village had a church, Methodist Chapel, Co-op store, Miners' Institute, Post Office and school. The village of Marsden was

<sup>2</sup> [http://www.bbc.co.uk/...../coast05walks\\_stage2\\_walk.shtml](http://www.bbc.co.uk/...../coast05walks_stage2_walk.shtml)

founded in 1874 and occupied the area on the cliff top immediately to the north of the lighthouse. The previous year the Harton Coal Company had sunk two shafts and established the new Whitburn Colliery. Shortly afterwards, to take advantage of the local coal and limestone supplies, a quarry was opened and lime kilns were built to produce quicklime for use in cement mortar. These industries attracted a sizeable workforce and Marsden was built to accommodate them. The limekilns, which used rock from the adjacent Marsden quarry, produced agricultural lime and lime plaster. A railway was built to bring in rock from other quarries and take out the finished products and locals called it The 'Marsden Rattler' due to their lack of shock absorbency<sup>3</sup>.

The quarries of the Limestone Landscapes left a considerable legacy and the tall working chimney at Thrislington Quarry should be seen an indicator of the area's distinctiveness. Elsewhere, there are numerous 'pock-marks' where industrialisation and the removal of stone for building, sand, flux or chemical use should not be viewed as an eyesore but one that is necessary for the economic viability of the area.



Wingate Quarry © Rodger Smith

One eminent collier from the region was **Sir George Elliot**, 1st Baronet, JP (1814 – 1893) was from Gateshead and started work at the age of 9 as a trapper boy at Whitefield Pit, Penshaw. He later owned this colliery after becoming a self-made businessman working in wire rope manufacturing. His company, Glass & Elliot, manufactured the first Atlantic cable. Sir George became a Conservative MP in 1868 and created a Baronet in 1874. His local residence was Houghton Hall at Houghton-le-Spring. He is buried in a family vault at Hillside Cemetery Houghton-le-Spring, itself a unique feature, carved into an ancient limestone quarry.

<sup>3</sup> <http://www.marsden-ons.co.uk/MFHN/marsvill.htm>

#### 1.3.3.4 Defence Heritage

The limestone landscapes are full of stories of innovation and none more so than the Fulwell Acoustic mirror, which is located in Fulwell Hill in Sunderland. The Fulwell mirror was designed to keep at bay German zeppelins in the First World War. The modus operandi was for the Duty Observer or 'Listener' to take up position in a bunker, usually in front of the 15 foot mirror with the stethoscope head-set connecting him to the collector head, usually an amplified microphone, above his own head. By evolving an excellent reporting system, its course could be tracked and plotted sufficiently accurately to allow the anti-aircraft defences to take defensive action. The noise of an approaching zeppelin's engine could be picked up some 15 minutes away<sup>4</sup>.



Another, earlier sea defence was the attempt to build a floating platform naval gun at Trow Point, Marsden. Built originally in 1886-7 for the Inspector General of Fortifications for experimental trials and designed by Hiram Maxim a cylinder stood in water, which rose when gas was pumped in above the water, and fell when the gas was released. A standard naval gun was mounted on top of the cylinder and would be concealed while being loaded, and then rise out of the pit to fire. Unfortunately, it didn't live up to expectations, being far too slow and so was abandoned. Today, a replica is at the site.

<sup>4</sup> [www.newcastle.gov.uk/core.nsf/a/msl\\_mon\\_mthly](http://www.newcastle.gov.uk/core.nsf/a/msl_mon_mthly)

### 1.3.4 Cultural Associations

#### 1.3.4.1 Language and Place Names

For the earlier Anglo-Saxon settlement of the area and any subsequent expansion and colonisation, some significant potential exists in the study of place name evidence. It has been suggested that ‘ham’ endings may be indicative of early Anglo-Saxon settlements, such as at Seaham and Middleham. Elsewhere in the study area ‘tun’ endings as at Easington suggest settlement expansion in the mid to late Anglo-Saxon period where the ing may well refer to a local overlord in perhaps the 9th century onwards as the manorial system of landscape division began to emerge<sup>5</sup>.

‘If the jokes, stories, songs and booklets from these local (Seaham) pits are anything to by, then there should be a vast amount of the like out there all over the Northern Coalfield and the task of rescuing pit literature is only beginning’. So says the linguistic academic Bill Griffiths, in his book ‘Pitmatic’<sup>6</sup>. Although a non-native, he took to recording the voice of the North–East dialect and his book is a heartfelt attempt to bring together the words spoken by the miners and how they relate to the wider language-world of the region and its literature.

##### *The Collier’s Rant*<sup>7</sup>

*As me and my marrow was ganning to work  
We met with the devil, it was in the dark  
I up with my pick, it being in the neit  
I knock’d off his horns, likewise his club feet.*

##### *Chorus:*

*Follow the horses, Jonny my lad oh!  
Follow them through, my canny lad oh!  
Follow the horses, Johnny lad oh!  
Oh lad ly away, canny lad oh!*

*As me and my marrow was putting the tram  
The low it went out, and my marrow went wrang  
You would have laugh’d had you seen the gam,  
The deil gat my marrow, but I gat the tram*

*Oh! marrow, oh! marrow, what dost thou think?  
I’ve broken my bottle and spilt a’my drink  
I lost a’my shin splints among the great stanes  
Draw me t’the shaft, it’s time to gan hame*

<sup>5</sup> Watts, V. 2002. A Dictionary of County Durham Place-Names English Place Name Society xiii-xiv

<sup>6</sup> <http://en.wikipedia.org/wiki/Pitmatic>

<sup>7</sup> Ritson, Joseph, *the Northumberland Garland*, Newcastle and London 1809, item XIII

*Oh! Marrow, oh! Marrow! This is wor pay week  
We'll get penny loaves and drink to our beek  
And we'll fill up our bumber, and round it shall go,  
Follow the horses, Johnny lad oh!*

*This is my horse, and there is my tram-  
Twee horns full of grease will make her to gang!  
There is my hoggars, likewise my half shoon,  
And smash my heart, marrow, my putting's a'done*

#### 1.3.4.2 Football and Fairies

Throughout the C20th, football became an impassioned sport, with many a 'lad or lassie' cheering the boys in red and white stripes on, for much of the century at Roker Park and from 2001 at the new Stadium of Light, built on the site of the Monkwearmouth Colliery. Manager, Bob Stokoe and his trilby, winning the FA Cup against the odds in 1973 is an abiding memory for many.

**Bob Paisley** (1919-1996), was born to a mining family, brought up in Hetton-le-Hole and went on to win 3 European Cups as manager of Liverpool, after a lifetime of playing for Liverpool. He remains the only manager to have done so in England.



He was quoted as saying "My uncle was a slaughterman for the Co-op and I used to get pigs' bladders off him to use as footballs in the street."

Also in Hetton, **Robert Surtees**, (the eminent county historian who resided at Mainsforth within the area) recorded in 1834, a place that was covered in stones and kept unploughed where the fairies are supposed to live:

*'Up spoke the moody fairy king,  
Who wons beneath the hill;  
Like wind in the porch of a ruin'd church,  
His voice was loud and shrill.'*

The 'Fairy Cradle' a prehistoric burial mound was lost, in the building of terraced houses but this little piece of mythology was commemorated by the builders who built the Victorian streets and named it 'Fairy Street' and put up a dedicated plaque:



#### 1.3.4.3 Artistic Associations

There are two regionally well known artists from the area: Tom McGuinness and Norman Cornish. Both have been inspired by their life of being brought up in a coal mining landscape and subsequent enrolment as a coal miner. McGuinness was to serve as a Bevin boy in 1944 and continued down the pit for 39 years. His work uses distortion to convey the depth of feeling he experiences when depicting the miner's lot<sup>8</sup>. Cornish was born in Spennymoor in 1919 and was also conscripted to the mines as a Bevin Boy and worked in the industry for 33 years. At the age of 15 he was also accepted in to the Spennymoor Settlement, or the Pitman's Academy who fostered a strong sense of art, culture and education in the region<sup>9</sup>.

<sup>8</sup> McGuinness Interpreting the art of Tom McGuinness. (2006) Robert McManners and Gillian Wales. Gemini Productions

<sup>9</sup> <http://www.spennymoorsettlement.co.uk/page2.html>



#### 1.3.4.4 Heritage in Films, Paintings, Literature

There are many references to the heritage of the area being used in films, paintings and films, none more so than the successful films of *Get Carter* (1971) and *Billy Elliot* (2000).

*Get Carter*, the gritty gangster movie starring Michael Caine, had its final shots on the Durham coast and there is some evidence to suggest that it was influenced by the murder of Angus Sibbet of South Hetton in 1966.



*These shots from Blackhall Rocks show how the landscape is dynamic:*

*Billy Elliott* featured Jamie Bell as a lad growing up in Easington during the miner's strike in the 1980's as he overcame adversity to become the primo uomo in Tchaikovsky's *Swan Lake* at London's Convent Garden.

Ridley Scott also used Blast Beach, Seaham for the backdrop of his director's cut version of *Alien 3*.

Although most associated with Salford and, Lancashire in his later years, the painter **LS Lowry** (1887-1976) would often spend holidays at the Seaburn Hotel in Sunderland, painting scenes of the beach, as well as nearby ports and coal mines. A number of his paintings of the area now hang in Sunderland Museum.

Probably the most famous poet of the area is **Elizabeth Barrett-Browning**. (1806 –1861) who was born at Coxhoe Hall, in County Durham and baptized in 1809 at Kelloe Parish Church. She was one of the most prominent poets of the Victorian era and wife of poet Robert Browning, to whom she was married in secret due to objections by her father. Elizabeth's works were equally, if not more popular, with Victorian audiences than those of her husband, and her poetry was widely popular in both England and the United States during her lifetime. Her collection of sonnets titled 'Sonnets from the Portuguese' contains many anthologized poems including her most famous, XLIII, in which she enumerates her affection for her husband:

"How do I love thee? Let me count the ways"

*How do I love thee? Let me count the ways.  
 I love thee to the depth and breadth and height  
 My soul can reach, when feeling out of sight  
 For the ends of Being and ideal Grace.  
 I love thee to the level of every day's  
 Most quiet need, by sun and candlelight.  
 I love thee freely, as men strive for Right;  
 I love thee purely, as they turn from Praise.  
 I love thee with the passion put to use  
 In my old griefs, and with my childhood's faith.  
 I love thee with a love I seemed to lose  
 With my lost saints, I love thee with the breath,  
 Smiles, tears, of all my life! – and, if God choose,  
 I shall but love thee better after death.*



*Elizabeth Barrett Browning, photographed September, 1859, by Macaire Havre, engraving by T. O. Barlow*

In the late 18th century, the Milbanke family's main residence was Seaham Hall and it was here that **Lord Byron**, the poet, married Anne Isabella Milbanke. Although a distinctly unhappy and short marriage it does provide an interesting episode in the history of the area. It links not only Byron and internationally renowned poet and Anne Isabella Milbanke,



who herself was a brilliant student of mathematics amongst several disciplines and also a noted prison and anti slavery reformer. Their daughter Ada, shared parts of both her parents personalities being a brilliant mathematician and credited with inventing the concept of computer programming but also something of party girl running up significant gambling debts before an early death.

**Charles Dickens** resided in Cleadon at 'Cleadon House' where he reputedly gained inspiration for the character of Miss Havisham in his novel Great Expectations. The description of her house matches Cleadon House and local anecdote alleges that a man who lived in the house was stood-up at the altar and immediately ordered the clocks and reception at Cleadon House to be kept exactly the same as that at the moment he was to be married for a year and so providing the inspiration for Miss Havisham.

The area is strewn with pilgrimage routes, being close to the power and might of the Prince Bishops of Durham, is near to the Wearmouth – Jarrow monasteries and St. Hilda, who presided over Hartlepool before establishing the convent at Whitby.

### 1.3.4.5 Scientific Associations

Westerton Tower is an observatory tower located on the highest point of the plateau (199m), and built of local limestone for **Thomas Wright** (1711–1786) in 1765. Thomas Wright was an astronomer and architect who set up a mathematics and navigation school in Sunderland in 1730 before moving to London to work on various projects. He was the first to describe the shape of the Milky Way and speculate that faint nebulae were distant galaxies and is best known for his publication *An original theory or new hypothesis of the Universe* (1750). When he retired to Durham, he built the Westerton Tower for astronomical purposes.



*Wrights Observatory, Westerton © Hugh Mortimer*

The Durham Coal mining industry, quarrying and railway developments led the world in the first quarter of the 19th Century with double cage systems, safety lamps and unbelievable developments of the steam railway to haul the winnings to the new port of Seaham.

### 1.3.4.6 Registered Parks and Gardens

The region has 7 registered parks and gardens, although only two fall in the rural locations at Castle Eden Dene, also a National Nature Reserve, and Windlestone Hall.

In the mid 18th Century Hardwick Park at Sedgfield, parts of the layout and buildings were designed by **James Paine**. Although much of the original park survived, its condition deteriorated through the 20th Century, but since 1997 it has been the centre of a major restoration project, involving archaeological and architectural recording. Its famed 'picturesque' qualities drew visitors during the 19th century to Castle Eden with its beautiful dene filled with the mysterious yew and many wildflowers. Descending from the grand new house, the dene served as a complementary garden in the grand, wild style. Walkways were cut through this woodland so visitors and residents might perambulate and Rowland Burdon (son of the founder, and himself deviser of Sunderland's first iron bridge) constructed a footbridge at the upper end and a pathway down the length of the dene in the 1790s and "*Thus the most magnificent of Magnesian Limestone glens which fringe the eastern coast of the County of Durham was rendered accessible through its whole length revealing its wild beauties at every turn.*"

The dene was opened up to the public by its owner in 1850 and has remained an attraction ever since. Today, the site is a National Nature Reserve and consequently most interpretation focuses on the natural environment rather than its history.



*Castle Eden Dene (a Registered Historic Park and garden) from an illustration by Thomas Allom of c.1832, visitors can be seen admiring the natural splendours of "The Grotto" part of several fashionable picturesque walks through the Dene.*

Windlestone Hall, is a landscaped park of just over 83 Hectares in the grand 18th century tradition of Capability Brown. It consists of wide open parkland with a series of lakes providing the setting for Windlestone Hall and a series of estate buildings and classical North Gate Lodge. The Hall

has long associations with the Eden family and was the childhood home of Sir Anthony Eden, British Prime Minister at the time of the Suez crisis in 1956. The Hall and parkland are now under split ownership and faces an uncertain future.

Although urban, Mowbray Park in Sunderland is a Grade II listed designed landscape that was originally opened in 1857 and has had many changes over its long history. Major reconstruction and renovation in 1994 led to a renaissance of the Park and the adjacent Sunderland Museum and Winter Gardens. The park could be an important signpost to the Limestone Landscape. It is on its doorstep for the many residents of Sunderland and has a splendid quarry of concretionary limestone towards the rear of the park.

Other parks and gardens are :

*North & South Marine Parks and Bents Park, South Tyneside. Grade II (urban);*

*Passmore Pavilion, Peterlee, County Durham. Grade II (urban);*

*Roker Park, Sunderland. Grade II (urban);*

*Barnes Park, Sunderland (urban)*

*Ward Jackson Park, Hartlepool, Grade II (urban).*

There are also many minor un-designated designed landscapes such as those at Coxhoe and Elemore Halls which contribute to the landscape quality. These have been identified in the studies commissioned by the Limestone Landscapes Partnership and their continued preservation is seen as a locally important objective

### 1.3.4.7 Mining Culture

The traditional mining village with its rows of terraced houses, churches, Co-ops, working men's clubs and allotments is a familiar picture and for many people the area is still tied to the former coal mines and the strong sense of community that developed over almost 200 years. There are over 40 local history societies, many being very active organisations. They are home to old photographs, colliery equipment, banners and are active in the care and restoration of pitwheels and memorials.

Every year since 1871, (with the exception, of the World Wars and 1920s strikes) <sup>10</sup>, the Durham Gala has seen many brass bands, miners, friends and families marching the streets of Durham to the Sands. Speeches by politicians, unionists and reformists are given on important points of the day. Brass bands and miners' banners would follow from each colliery and today, it is still a major event in the calendar. Many of the banners still come from the Limestone Landscapes area, such as Easington.



*1976 Gala with Easington Lodge banner draped in black to commemorate 25 years since the Easington Colliery disaster of 1951, which killed 85 miners.(c) Roy Lambeth*

As the mines become a more distant past, it will be interesting to see how the large collections of memorabilia are kept and as generations pass, who will look after them. It is important to recognise the work of organisations such as the Bowburn History Society and their contribution to recording, maintaining and restoring many miners' banners and the many local historical societies that keep the industrial heritage alive.

<sup>10</sup> [http://en.wikipedia.org/wiki/Durham\\_Miners'\\_Gala](http://en.wikipedia.org/wiki/Durham_Miners'_Gala)

### 1.4 Development of the Landscape

The Limestone Landscapes has a very important history and the historian, James Dodds strongly advocates, in 1897, in his *'The History of the Urban District of Spennymoor: with occasional references to Kirk Merrington, Middleton, Westerton, Byers' Green, Croxdale, and Ferryhill'* the importance of old and valued buildings in the face of 'economic development' and 'progress'. Dodds also suggests that the study of the historic environment, its communities, historic sites, buildings and people is something we should all have an interest in and through this investigation, the knowledge, stories and experiences be passed on to future generations. It should also be a pleasant pastime and 'not be a burden'.

So, winding back over 3,500 years, the Neolithic site of Copt Hill Seven Sisters above Houghton-le-Spring is perhaps the oldest built structure on the limestone and set in a very prominent location with its crown of trees on the escarpment. Canon William Greenwell excavated the site in 1877 followed more recently by the Friends of Copt Hill and Durham University. Their results suggest that it was primarily a Neolithic cremation site as well as containing late Bronze Age and Early Medieval inhumations. In addition to Copt Hill, neolithic remains are seen in crop marks in the form of henge monuments, one site near Chester-le-Street and another at Ferryhill which is only known from aerial photographs but could mark an exceptionally important prehistoric ritual site.



*Copt Hill*

During the Bronze Age and the Iron Age, up to the Roman occupation, the landscape would have been characterised by increased woodland clearance, expansion of agriculture with an increase in beef production and greater use of sheep. Larger farmsteads with enclosed settlements are likely to have been common although there are few remains; the exceptions being north of Easington Colliery and Thorpe Thewles.

Elsewhere smaller settlements seem to be related to more developed field systems such as ladder systems seen at Eldon, to the west of the area. Hill forts would have also been developed at this time, with the Shackleton Beacon in the far south west of the area being very prominent and is characterised by a significant construction of several encircling banks and ditches.

The landscape and settlement pattern established by the end of the Anglo-Saxon period provides a good deal of the foundation of the landscape we see today. Later enclosures, mineral exploitation, motorways and rail infrastructure with colliery villages and new towns over lie what was established a thousand years ago.

In the following period, the later Medieval Period, up to 1540, the agricultural economy developed significantly as major landowners sought to get the most from their estates. The new Anglo-Norman landowners wanted greater agricultural productivity and the characteristic Durham 'green village' of two rows of houses around a village green dates from this period. Animals were kept in 'Tofts' behind the houses and outside the village, fields were divided into strips to grow crops. The villagers had to provide food or rent to their landowners who were Lords of the Manor such as the owners of the largest medieval building in the area – Seaton Holme at Easington, the Monks of Durham or Priors of Hallgarth.

Many rig and furrow sites have survived and many are preserved under pasture, which may date back only a few hundred years, with notable examples at Sheraton, Coxhoe and Castle Eden. In between the settlements, woodlands and wetlands flourished, with some of the natural ponds being valued for fish, water fowl and reeds for thatching.

The most recent industrial heritage has been that of the mining industry, which brought about wide spread changes from around 1820, particularly with the advent of the railways. Stephenson's Stockton and Darlington Railway and Londonderry's Port of Seaham were the technological and infrastructure developments which were to bring unprecedented changes.

Throughout the rurality of the Limestone Landscapes, there are villages that traditionally would have been made up of a green surrounded by rows of housing. These traditional features survive well but especially around the urban fringe of cities they are becoming enveloped by urban sprawl and less visible in the landscape. Nevertheless villages such as Whitburn, Cornforth, Hawthorn and Hart are all still very clearly of medieval agricultural origin. Buildings are of local limestone or carboniferous sandstone with roofs of slate or clay pan tile. Mining towns and villages are more widespread and increase in density towards the coast. Many



were built on the site of older villages (West Cornforth) whilst others were new (Wheatley Hill).

In 1820, Wheatley Hill was a small agricultural settlement surrounding Rock Farm, a wonderful late medieval manor house with no evidence that large scale changes were on the horizon as an entire colliery village with pit, house, school and shops would appear within 20 years. By comparison, Cornforth had been settled since the Norman period and the landscape and settlement pattern established by the tenth century and still provides a good foundation of the landscape we see today. However with the coming of the railways and the development of deep coal mining through the limestone, the village grew around the pit so that today we have a village of two distinct periods. The first a medieval model of traditional houses round a village green; the second a Victorian mining colliery village with rows of terraced houses and back lanes.

Today, though, there is surprisingly little left of the coal mining industry with large scale reclamation work undertaken in the last thirty years. There are some remnant pit-head edifices and winding gear such as the Elemore baths and Crowtrees winding engine base at Quarrington Hill. The housing, schools, culture and mining communities still remain however. Throughout the region there are many numerous historical societies with whom the Limestone Landscapes have made contact for their views and support. Although the last pit in the area closed nearly 20 years ago there is still a strong link to the mining era though as generations come and go, landscapes change and inevitably this tangible family-based link will have been severely weakened.



**Figure 2 Maps of Wheatley Hill and Cornforth**



*Wheatley Hill 1860- present day*



*Cornforth 1860- present day*

The work on the coast through Turning the Tide in the 1990s and more recently, Durham Heritage Coast, has led to a major change in the visual landscape with the removal of many thousands of tonnes of colliery waste and a return to a more natural vista. The introduction of new facilities, interpretation, access and art together with major developments at Seaham through an industrial park, shopping, cafes, a new marina at the North Dock and an international film studios will mean that the coast is set to become an important tourist destination whilst local people are justly proud of their heritage but forward looking for the future.



*Easington Colliery 1992 and today*

### **The Present Day Landscape**

It is perhaps not surprising to know that a vast amount of work is taking place on the Limestone Landscapes, led by the five local authorities, Durham Wildlife Trust, Tees Valley RIGS, Sunderland Museum and Winter Gardens, Quarry operators and others to enable people, young and old to enjoy and learn about the biodiversity, geodiversity and historic environment. A large range of leaflets and information is available, from various locations, tourist sites and websites. Many people visit the coast, though this is more recreational than educational and if there is learning taking place it is likely to be informal. A number of interpretation boards are available to view on the coast and at other key sites.

The Turning the Tide project restored the polluted coastline after many years of neglect through the coal industry. This has further strengthened by the Durham Heritage Coast project leading to improvements to access, interpretation and the introduction of public art.

Quarry operators in the area are already involved in education projects and are keen to become further involved to develop interest in the unique rocks, strata and fossils that are frequently found in the marl slate.

Walking, cycling, horse-riding and nature watching are enjoyed by many people, though there is much room for improvement to access and surfacing. The many disused railway lines are very popular, being off-road and with gentle gradients, however, they lack good surfacing, signage and interpretation in places.

## 1.5 Management Information and Mechanisms

This section looks at the administrative overview of the Limestone Landscapes area and considers the ownership of land and various strategies, mechanisms and tools for management. A full list of designations can be found in **Appendix 4**.

### 1.5.1 Introduction

The Limestone Landscapes area is complex with regard to management as it has five local authorities and a multitude of other public and private ownership. Given the complexities and 'ordinariness' that has been attributed to the area, with the exception of parts of the Magnesian Limestone grassland and coast, it is not surprising that the area does not have any statutory landscape designations.

The creation of the European Landscapes Convention in March 2007 and the document 'All Landscapes Matter', Draft Policy for Consultation from Natural England in March 2009 has given focus to landscape-scale partnerships and the need for development based on Landscape Character Assessment. This has helped the process of the Limestone Landscapes Partnership and its development.

Managing wildlife sites, SSSIs, the National Nature Reserves and the many miles of Public Rights of Way (PROW) that exist is the responsibility for local authorities and Natural England. There are also targets for habitat protection and enhancement under the national, regional and local Biodiversity Action Plan.

In the Limestone Landscapes, parts of the Durham Coast along with wooded landscapes around Castle Eden, Wingate and Ellemore, are designated as Areas of High Landscape Value (AHLV) in Local Plans. Much of the coast is also designated as Heritage Coast.

Parts of the coast, together with Castle Eden Dene and Thrislington National Nature Reserves, are designated as Special Areas for Conservation (SAC) and the coast is part of the Special Protection Area (SPA) for wild birds.

Within the area there are four National Nature Reserves which include Cassop Vale, Thrislington and Castle Eden Dene as well as a number of Local Nature Reserves. The area contains a relatively large number of Sites of Special Scientific Interest (SSSI) including Magnesian Limestone grasslands, abandoned limestone quarries and ancient ash and yew woodlands. A large number of similar habitats are designated as Local



Sites – many on the disturbed sites of old quarries and mine workings, railway lines, road verges and clay pits.

### 1.5.2 Legislation and Policy

A number of legislative and associated frameworks exist to help support and protect the nature conservation interests of the Limestone Landscapes. They are: European, National and Local.

#### 1.5.2.1 European

Article 1 in the EC Directive on the Conservation of Wild Birds (79/409/EEC) provides for the protection, management and control of all species of naturally wild birds. Articles 2 and 3 requires Member States to take measures to preserve a sufficient diversity of all species of wild birds in order to maintain populations at sound levels. Article 4 requires Member States to take special measures to conserve the habitat of particularly rare species and of migratory species.

In the Limestone Landscapes, the Special Protection Areas (SPAs) are found on the coast and are also within the Northumbria Coast SPA. This also forms part of the Northumbria Coast Ramsar Site. Both designations are due to the key species of Little Tern, Purple Sandpiper, Turnstone and Knot, together with an internationally important assemblage of over-wintering wildfowl.



*Little Tern* © INCA

### Table 2 Special Areas of Conservation

The Special Areas of Conservation (SAC) are Castle Eden, Durham Coast and Thrislington indicating their location, condition and why they qualify:

Site Name	Location and condition	Qualifying features of European designation
Castle Eden SAC	East Durham 6.8% favourable 93.2% unfavourable	Extensive occurrence of Yew
Durham Coast SAC	East Durham 62.8% favourable 37.2% unfavourable	Vegetative seacliffs on mag-lime exposures
Thrislington SAC	South Durham 100% favourable	Semi-natural dry grasslands and scrubland facies: Calcareous grasslands

#### 1.5.2.2 National

The implementation of the Wild Birds Directive was filtered through the Wildlife and Countryside Act, 1981 with the subsequent designation of the Special Protection Areas (SPAs). This Act (amended in 2006 with the Natural Environment and Rural Communities Act) provides the bedrock of wildlife legislation in the UK, with support from the SSSIs. All terrestrial SPAs are also SSSIs notified under national legislation with management from Natural England.

Another major force for access to the landscape has been the many Acts of Parliament to create Public Rights of Way in England and Wales. The latest was the Countryside and Rights of Way Act 2000 (CROW) which resulted in important changes to upland areas. It also led to the formation of four Local Action Forums (LAF) for Tyne and Wear, Darlington, Hartlepool and County Durham and each local authority had to produce a Rights of Way Improvement Plan (ROWIP). County Durham ROWIP was produced in 2007.

#### 1.5.2.3 Local

Limestone Landscapes is a Partnership of five local authorities, each council being obliged to support the implementation of the statutory framework and designations of the area. The Durham Heritage Coast is another Partnership scheme that offers cross-authority working to improve conditions for wildlife and people.

Each local authority has statutory planning powers which overlay the area and due regard would have to be given to any future planning application. Competition in the form of mineral extraction, energy generation and distribution, water supply and housing are competing and complex issues. In County Durham, weight has been given to a number of Housing Growth Points which focus in on Spennymoor, Peterlee and Easington as both the former Government and the current coalition recognise the need for more new housing. A report<sup>11</sup> commissioned by Durham County Council has identified priority areas for Green Infrastructure so that improvements can be made prior to new housing being built.

In addition to the International and National designations, there are also important Local Nature Reserves (9 in total) and many Local Wildlife Sites, County Geological Sites. There are 25 Scheduled Ancient Monuments and a number of important registered parks, gardens and conservation areas, however the ever increasing needs of an urbanized-nation will continue to put pressure on valuable land.

Other plans and strategies that support landscape scale work are:

- \* The strategy is supported by the environmental sector, Government Office North East (GONE), North East Assembly and One North East (ONE) and has called for more landscape-scale partnerships as a vehicle for integrated delivery.
- \* The North East of England Plan – Regional Spatial Strategy (RSS) to 2021.  
Although scrapped in May 2010, this strategy recognised the value of conserving and enhancing the landscape character outside current designated landscapes and the importance for adequate identification and assessment of the assets and consideration of the contribution these make to local character and diversity.  
RSS policies are being used within Durham County Council to produce Local Development Frameworks (LDFs), consequently strengthening the role of landscape and historic environment. (See below).

Local Authority statements and plans:

The Limestone Landscapes partnership has the aspiration to establish some of its larger projects in those LDFs and thereby create a stronger

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<sup>11</sup> Durham Growth Point Access Prioritisation (March 2010) Durham County Council

link between Section 106 development monies and its Limestone Landscapes Fund.

### Durham County Council

- \* Durham County Council County Plan  
 Altogether greener: *'This is about making sure we have an attractive local environment with clean streets, attractive towns and villages, good transport facilities and protection from extreme weather conditions. It is also about tackling climate change, reducing waste that we send to landfill and increasing levels of recycling and composting.'*
- \* County Durham Landscape Strategy – Durham County Council.  
 A non-statutory document based on the Landscape Character Assessment for County Durham. It was written and adopted in April 2008 and is useful for anyone involved in the Durham landscape, its management and development. It calls for a co-ordinated approach for action on the environment through the development of Landscape Partnerships, such as the Limestone Landscapes. North East Strategy for the Environment – North East Environment Forum

The Limestone Landscapes Partnership is noted as major force for landscape scale work in the new draft Core Strategy (part of the Local Development Framework, formulated in part from the former Regional Spatial Strategy) at Durham County Council:

*"The Council's approach to sustaining nationally, regionally and locally valued landscapes will be to continue to support existing partnerships such as the North Pennines AONB Partnership, the Durham Heritage Coast Partnership and the Limestone Landscapes Partnership. It will also promote the development of new landscape scale partnerships and particularly in former coalfield and urban fringe areas".*

### South Tyneside Council

**South Tyneside Council** in its Core Strategy Local Development Framework has four relevant policies:

#### **Policy EA1 Local Character and Distinctiveness**

Where it suggests *"conserving the open limestone grassland character of the Cleaton Hills"*.

#### **Policy EA2 The Coastal Zone**



The Council will work with partners to conserve and enhance the character of the Undeveloped Coast as a high quality natural environment and resource for biodiversity and outdoor recreation.

### **Policy EA3 Biodiversity and Geodiversity**

To optimise the conditions for wildlife, implement the Durham Biodiversity Action Plan and tackle habitat fragmentation and ensure that new development would result in no net loss of biodiversity value of any of the Priority Habitats including Magnesian Limestone grassland.

### **City of Sunderland Council**

The *Sunderland Strategy 2008 – 2025* is the overarching visionary strategy for Sunderland until 2025. The strategy essentially sets out an action plan that outlines how the people of Sunderland will work together to achieve the vision. There are 5 main aims to the strategy, of which aim 5 is most intrinsic to the countryside: *‘...to ensure that Sunderland becomes a clean, green city with a strong culture of sustainability, protecting and nurturing both its built heritage and future development and ensuring that both the built and natural environments will be welcoming, accessible, attractive and of high quality’.*

The Core Strategy Revised Preferred Options draft has been approved by Sunderland City Council for consultation purposes, although this is on hold pending a review to take account of the new Government’s planning agenda.

The Core Strategy does not have a landscapes policy per se, though the protection and conservation of distinct landscapes is implicit in several:

#### **SPATIAL OBJECTIVES:**

#### **17. Protecting the countryside**

To protect and enhance the countryside, its landscape and areas of individual landscape character, including features associated with the River Wear, Sunderland coast and the Magnesian Limestone Escarpment

#### **18. Green infrastructure**

To ensure that all homes have good access to a range of green spaces linked across the city connecting major parks, the riverside, the coast and adjoining districts

#### **POLICIES**

#### **CS1.5 Environment**

- a. The Strategic site location North of Nissan will be removed from the Green Belt. Elsewhere the broad extent of the Green Belt in

Sunderland will be maintained and protected from inappropriate development, to check the unrestricted sprawl of the built up area of Sunderland and assist in the safeguarding the city's countryside from further encroachment.

- b. The City Council will establish a network of green infrastructure comprised of linked open spaces and produce a strategy for its improvement that will provide an accessible context for sustainable communities and economic development sites. The interlinked green corridors will connect Sunderland's countryside, coast, riverside and urban open spaces across the city and with neighbouring districts.
- c. The City Council will preserve and enhance those parts of the built environment that make a positive contribution to local character, that establish a distinctive sense of place and which represent the unique qualities of Sunderland.

#### CS2.4 Environment

Creating an attractive city with a high quality built and natural environment through:

- a. Ensuring that communities are supported by high quality developments that are designed to provide safe, attractive places to live
- b. Preserving and enhancing the historic environment of the city, especially *designated heritage assets and other valued buildings and areas of historic and townscape significance, and capitalising in a sensitive and appropriate manner on their regeneration and tourism potential.*
- c. Ensuring existing and proposed public realm located throughout the city is of high standard to offer accessible, functional, attractive and legible spaces
- d. Protecting and enhancing inter-district green infrastructure corridors, seeking ways of establishing links where restricted in urban areas:
  - i. The coast
  - ii The River Wear

- iii. Green Belt and open countryside west of A19
  - iv. Northern boundary Green Belt
  - v. Part of the Coast to Coast (C2C) cycle route
  - vi. Part of the Walney to Wear (W2W) cycle route.
- e. Protecting, conserving and enhancing:
  - i. The varied landscape character within the city, and separate identity of its settlements, through the retention of important open-breaks and wedges within and between settlements, where possible
  - ii. Valued green infrastructure (including sites designated for their geological value) to improve its quality, integrity, community value, multi-functionality and accessibility particularly in areas of identified deficiency and to increase provision in these areas. Permission for other uses on these sites will only be acceptable if robust justification is provided
  - iii. Habitats and species identified in the Durham Biodiversity Action Plan (DBAP)
- f. Conserving and enhancing where necessary designated nature conservation sites, with inappropriate development being resisted. The degree of protection given will be appropriate to the status of the site in terms of its local, national or international importance
- g. Encouraging the retention of trees which make a valuable contribution to the character of an area through Tree Preservation Orders.

## Hartlepool Borough Council

Hartlepool BC has set out its Preferred Options stage of their Core Strategy, with two policies which are probably of relevance: Policy CS15: Natural Environment, although Policy CS16: Open Spaces is also of interest.

The Core Strategy (at August 2010) is not however adopted so these policies only carry limited weight in policy terms at the moment. Current policies which have a relevance to landscape and the habitat it creates include WL2 (Protection of Nationally important Nature Conservation Sites), WL3 (Enhancement of SSSIs), WL5 (Protection of Local Nature Reserves), WL7 (Protection of Sites of Nature Conservation Importance

(SNCI), Regionally Important Geological/geomorphological Sites (RIGS) and Semi-Ancient Woodland) and Rur20 (Special Landscape Areas).

### **Darlington Borough Council**

Darlington's Publication Draft Core Strategy 2010, section 7: A Distinctive, Greener, Cleaner Environment, within section 7.1 Promoting Local Character and Distinctiveness: Policy CS14 in Promoting Local Character and Distinctiveness C:

Protecting and enhancing the distinct landscape character of:

Tees Lowlands;

Durham Magnesian Limestone Plateau;

Durham Coalfield Pennine Fringe;

This document also suggests the importance of protecting and enhancing the quality of wide views of the North York Moors, upland Dales and Tees Valley villages. Reference to protecting buildings and features through national designations as well as local lists and 'at risk' register.

7.2 Enhancing Biodiversity and Geodiversity has a policy CS15 Protecting and Enhancing Biodiversity and Geodiversity which suggests the importance of protection, restoration, extension and management of Darlington Borough's biodiversity and geological network to help achieve the target level of priority habitats and species set out in the UK and Durham Biodiversity Action plans.

Section 8 is regarding a Multifunctional Green Infrastructure Network with policy CS17: Delivering a Multifunctional Green Infrastructure Network. The green infrastructure network will be protected and, where appropriate, enhanced and extended to provide a quality, accessible, safe network of well connected, multifunctional green spaces to meet the formal and informal recreation needs of the community, help reduce health inequalities and enhance the visual amenity, biodiversity, landscape and historic character of the Borough. This network will include:

- I) Grades 1, 2, 3 agricultural land;
- J) The Rights of Way network; and
- K) Open countryside.

### 1.5.3 Land Ownership, Tenure and Mechanisms

Land ownership is a mix of public and private, with much of the protected land belonging to local authorities and the National Trust. Durham Wildlife Trust manage a number of reserves such as Bishop Middleham and Trimdon Grange; a full list occurs in the supporting documents. The National Trust own quite large areas of the coastal fringe in Durham and The Leas, south of South Shields, much of it managed for biodiversity purposes. There are no large private landowners and the majority of the rural landscape is owned and managed by farmers and tenants. Some land ownership is unknown, making programmes of restoration for conservation purposes difficult. Despite these numerous designated sites, most are small in size and fragmented. The average size of a SSSI for example is 0.1 square kilometre.

#### Agri-environment funding

Farmers can apply to Natural England for grants to help supplement the cost of biodiversity work on their holdings, the Environmental Stewardship objectives being:

- \* Conserve wildlife
- \* Maintain and enhance landscape quality and character
- \* Protect the historic environment and natural resources
- \* Promote public access and understanding of the countryside
- \* Protect natural resources

Higher Level Stewardship is a targeted scheme of which the Durham Magnesian Limestone forms a Target Area. In order to apply for the scheme applicants must fulfil certain conditions such as maintain/restore/create habitats; provision of habitat for birds, summer food and winter food for birds; positive management of visible and below ground archaeological and historic features; protect, maintain and restore historic landscapes and buildings; create new permissive access.

Funding is also available for woodland creation and improvements through the Forestry Commission's English Woodland Grant Scheme (EWGS).

### 1.5.4 Partnership Development

Our project aims to restore and enhance the Magnesian Limestone Plateau as a unique landscape with multiple benefits for the people who live, work and play here.

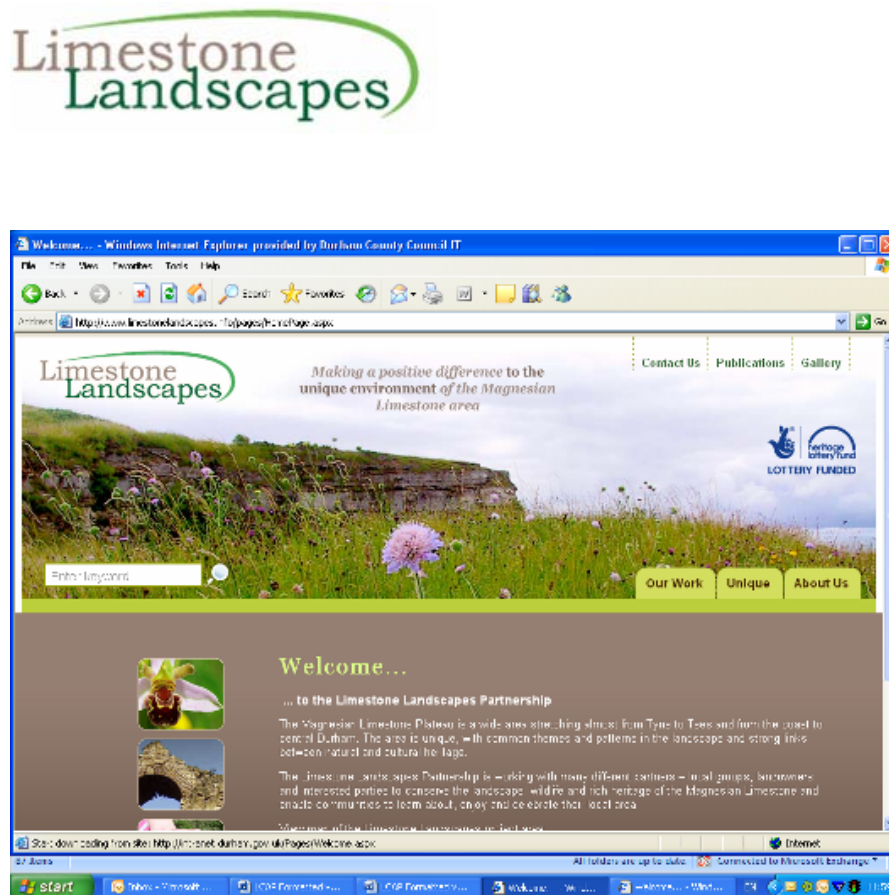


*Daldon Tower © Lesley Cranston*

This project seeks to create a long-term, strategic partnership which will operate across political boundaries to target a unique landscape, linking resources and expertise, supporting and enhancing existing partnerships, projects and programmes.

In order to secure longevity the Partnership set up a 'Limestone Landscapes Fund': a funding resource that will seek funds that will, in future, be able to be distributed to relevant projects across the area.

The partnership has developed its own logo and web site:



Screen grab of the home page of the Limestone Landscapes website:

[www.limestonelandscapes.info](http://www.limestonelandscapes.info)





## 2.0 STATEMENT OF SIGNIFICANCE

The Durham Magnesian Limestone Plateau is a landscape where there are strong links between natural and cultural heritage. The outcropping limestone supports rich, and in places unique, assemblages of plants and animals. The free-draining lime-rich soils have a long history of settlement and agriculture. The exploitation of the area's mineral wealth – its limestone rocks and hidden coal seams – has had a profound influence on the pattern on settlement across the area and the culture of its people.

The rocks of the Yellow Sands, fossil-rich Marl Slate, and Magnesian Limestone formations that are exposed in natural denes and cliffs or quarries and road cuttings, are of considerable scientific and educational interest. The area contains 7 nationally important Geological / Geomorphological Sites of Special Scientific Interest and 22 Local Sites. Although quarrying is now carried out on an industrial scale it has a long history in the area which can be traced in the remains of old abandoned quarries and limekilns and the now, very rare buildings and field walls of soft dolomitic limestone. Of particular significance is the canon ball rock of the concretionary limestone that is seen in a number of locations in Sunderland.

The rocks have been studied for almost 200 years and because of their significance, there has been a plethora of famous geologists who have graced the Limestone Landscapes with their presence. These have included famous geologists such as Murchison, Adam Sedgwick, founder of modern geology and William Smith, the 'Father of English Geology' as well as Trenchmann and Canon Greenwell.

The underlying coal measures were exploited by a large number of collieries from the early C19th onwards and this had a major effect on the area. The rural landscape of the plateau became densely settled with numerous mining towns and villages connected by new networks of roads, railways and waggonways. The wave of inward migration that came with it brought people from all parts of the British Isles, who quickly formed communities with a strong sense of place and identity focussed on coal mining. The influence of geology is therefore not just a matter of academic interest in this area but goes to the heart of community identity. Because of its commercial importance the geology of the area has been minutely explored and is very well documented, but hasn't always been well interpreted or understood by the lay person despite its importance to place and history.

The area has a long history of settlement and farming with high concentrations of Mesolithic activity along the coast and notable Bronze Age ritual sites, Iron Age and Romano-British settlement associated with the limestone outcrops. It was densely settled in the medieval period leaving a legacy of shrunken and abandoned medieval settlements and fossilised field systems. It is particularly rich in industrial remains associated with coal mining and railways and has some notable coastal defence features from World War II. The area contains 25 nationally important Scheduled Ancient Monuments and a large number of listed buildings and structures with features representing all periods of the area's long and varied history.

The limestone escarpment forms an important part of the setting of Durham Cathedral and Castle World Heritage Site in the neighbouring Wear Lowlands and contains some notable and important views towards it from ancient pilgrimage ways. Many of the older rural settlements are designated as Conservation Areas as are important parts of the City of Sunderland's Historic Townscape. Of particular importance are the Conservation Areas of medieval villages such as those at Bishop Middleham, Castle Eden, Cleadon Hills, Cornforth, Elwick, Easington, Hawthorn, Trimdon, Whitburn and Windlestone. Some of these villages fall within Areas of High Landscape Value.



*Cleadon Hills pumping station © Roger Cornfoot*

The landscape is full of surprising diversity with many distinct landscape types from steep sided coastal cliffs, gentle undulating plateau, incised woodland denes and a west-facing escarpment. Botanically diverse sites are around the National Nature Reserves at Thrislington and Cassop Vale where there are areas of unimproved herb-rich grasslands on the shallow soils. Here the conditions are remarkable for the assemblage of summer-flowering plant species.

These grassland plants and associated fauna are particularly significant as they include plants which are seen more commonly in the north, growing with plants from the south, the chalk downlands. As such, they are seen as an ecological bridge between the two plant communities. This unique habitat is characterised by Blue Moor Grass, Small Scabious and Common Rock Rose, the latter being the food plant of the Northern Brown Argus and lesser minor moth.



*Blue Moor Grass*

The decline of the coal industry with the closure of the last pits in the late C20th has left the communities of the area in a period of transition with an identity strongly rooted in their mining heritage but facing an uncertain future, with high levels of unemployment and social, economic and environmental deprivation. The physical remains of the natural and cultural heritage of the area – both in terms of its recent industrial past, its older roots and its underlying ecology and geology – are of immense importance to the process of maintaining and strengthening community identity.

The Limestone Landscapes area offers a number of ecosystem services, including wooded denes to mitigate against carbon emissions and access to the countryside for walking, cycling and horse-riding benefits. Many use the area on their doorstep for regular exercise and fresh-air recreation and visit the coast for occasional days out and walks. The landscape can also be an inspiration for those who want to use it in a less-active way, with viewpoints from escarpment and coastal cliff-tops remaining favourites.

This was identified in various consultations including these quotes:

*“Nobody’s got what we’ve got”* and

*“A naturally physical and fairly cheap outlet for the kids”*<sup>12</sup>

The significance of the Limestone Landscapes is that for the many people who live there and, increasingly, visitors to the region, it has a strong sense of place with an accent on the local sites. Despite its ‘ordinariness’ tag, its geodiversity, biodiversity and strong links to the historic environment, particularly in the rural locations and on the coast means that this is a landscape with a unique, world class heritage.

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<sup>12</sup> NECR 024 Experiencing Landscapes: Capturing the cultural services and experiential qualities of landscape (Natural England) Oct 2009

### 3.0 RISKS AND OPPORTUNITIES

In working in such a wide area there are going to be many risks and opportunities and it is the responsibility of the Partnership to identify those that are pertinent to the projects that will be delivered in the time period. This section looks at the main risks and opportunities to the Natural, Historic and Built Environment and considers the barriers to accessing the landscape from the Learning Access and Community Engagement plan.

#### 3.1 Biodiversity

Key document: *A Proposed Biodiversity Work Program for the Limestone Landscapes 2010-2015 (2010) Durham Wildlife Services*

##### Risks

- \* Flower-rich limestone or neutral pastures and meadows have declined with agricultural improvement, or the encroachment of scrub.
- \* Risks to wetland sites include agricultural run off resulting in high levels of nitrates and dramatic reduction of species, drainage and lack of maintenance resulting in silting in up of sites.
- \* The hedgerow network is heavily fragmented in places and continues to decline through removal or neglect.
- \* Coastal erosion.
- \* Climate change has the potential to affect the distribution of species. The fragmented nature of habitats makes it difficult for plants and animals to move through a landscape where it may be some distance to a suitable site for occupancy.
- \* The introduction of grazing for the benefit of biodiversity on land that is crossed by rights of way can result in conflicts with dog-walkers.

##### Opportunities

- \* Important grasslands have been identified and appropriate management techniques to control scrub proposed as part of the management regime. This includes cutting and removing vegetation and/or using livestock on a rotational basis.

- ✱ The biodiversity projects can be selected on their ability to join up and make larger existing areas of semi-natural habitat. This will de-fragment the landscape and make it easier for displaced species to move around and find suitable sites.
- ✱ This type of work can be very labour intensive, particularly on the more hard to reach sites such as smaller pockets and those on steep slopes. It is an ideal project for volunteers of all ages and abilities to be involved in.
- ✱ There are opportunities to remove improved grass and soil from small areas of improved grassland adjacent to species-rich areas. This creates a habitat so hostile that only the hardiest of lime – loving plants can grow.
- ✱ The re-introduction of grazing to the coast will maximise the number of flowering species and associated fauna, providing habitat for those species displaced from the coast due to erosion.
- ✱ By addressing biodiversity on a landscape-scale.
- ✱ Some areas are unmanaged and a programme of cutting will be implemented. Other areas are on reclaimed land where concrete lined channels will be naturalised and wetland habitats created.
- ✱ There will be opportunities for people to learn about the important flushes at the coast as part of the Coastal Grasslands project.
- ✱ There will be opportunities to help restore the integrity of the hedgerow network and improve their wildlife value.
- ✱ Traditionally managed farms which have high biodiversity will be used for educational and training purposes.
- ✱ Possibility to introduce grazing to improve flower rich meadows.
- ✱ Much of the coastal grasslands are owned by 'friendly' public landowners such as National Trust, Durham Wildlife Trust and Local Authorities. Positive consultations, held by the Durham Heritage Coast, have led to the development of a Higher Level Stewardship scheme to bring back grazing to these grasslands. The challenge is to maximise the benefits and minimise any conflict.

### 3.2 Geodiversity

Key document: *Limestone Landscapes -a geodiversity audit and action plan for the Durham Magnesian Limestone Plateau (2010) BGS*

#### Risks

- \* Development or quarrying that obscures or removes landscape features and/or important geological sites.
- \* Coastal erosion.
- \* Progressive deterioration of rock exposures, through instability and slumping of sections.
- \* Inappropriate recreational activities such as vandalism, use of motor bikes, graffiti and fly-tipping.
- \* Rock faces have become vegetated or scrubbed over. They can often be poorly exposed and are not easily accessible.

#### Opportunities

- \* Sensory trails and audio trails will give people with disabilities the opportunity to explore and learn about the area's fascinating geodiversity. It will also provide a 'safe' environment for those less confident in, or unlikely to explore the wider countryside and foster a greater understanding and appreciation of the important limestone geology.
- \* Scrub removal and improvements in access will expose rock faces at sites across the Magnesian Limestone. It will also highlight the importance of these sites and the unique geology with a programme of awareness raising and educational visits and interpretation material. It is hoped that this process will give communities a greater appreciation of its existence and importance and prevent some of the anti-social behaviour currently affecting the sites.
- \* Educational visits and open days to provide a greater appreciation of working quarries and how they are not only important for exposing geodiversity but also for the region's economy and biodiversity. Fossil hunting element will provide the opportunity to learn not only about the creatures and plants of the distant past, but how they grew, what they ate, how they interacted, and many aspects of their behaviour.



- ✱ In addition to natural degradation, quarries and geosites are subject to inappropriate development, vegetation enhancement, tree planting, instability and slumping of faces and sections as well as landfill threats. Vandalism, fly-tipping and graffiti, especially in urban locations is a real risk particularly at sites close to urban locations. Other Landscape Schemes have seen anti-social behaviour decrease, such as the Wren's Nest in the Midlands where geodiversity and community engagement through artistic endeavours have created greater ownership of the area, especially with young people.



*Tunstall Hills, Sunderland*

There are many opportunities to tell the story of the area and although much has been written in the past, there is not an overall good description for the non-specialist. Traditional techniques of leaflets and interpretation boards could be deployed but web-based downloadable material using GPS, mp3 and audio trails could be more innovative. Geo-caching could be inspirational to discover the outdoors.

### 3.3 Historic Environment

#### *Historic Environment Audit and Action Plan*

Key document: Historic environment action plan *Archaeo-Environment*, February 2010

Historic Buildings & Structures of Local Importance, Value and Character *Archaeo-Environment*, August 2010

#### **Risks**

The conservation issues facing the historic environment are similar to much of northern England although the marine erosion of the soft Magnesian Limestone is peculiar to the region itself. Major issues include:

- \* Coastal erosion: as mentioned above, in respect of historic environment, high occurrences of prehistoric stone tools, eroding from sea cliffs and dunes need to be monitored and ideally, have a budget ready in an emergency to collect finds or invoke a rescue excavation.
- \* Arable ploughing: deep ploughing is considerably damaging to sub-surface archaeological remains and where identified through sensitivity mapping the archaeological potential drawing on HER and Portable Antiquities scheme. In some areas this has already been done.
- \* Agricultural change resulting in plough damage and boundary loss: changes in farming practice represent a threat to landscape character as machinery grows larger and farms amalgamate, there are economic pressures to grub out hedges and convert from long term pasture to arable.
- \* Woodland planting: Despite the strong drive to plant more trees for many positive reasons, arguably this can be seen to be detrimental to landscape character. Schemes should be well thought out and historic data assessed for previous wooded sites to be planted up and at the feasibility stage, archaeological assessment should be undertaken.
- \* Urban development/encroachment: risks to the landscape character are very broad and the landscape partnership can be exceedingly important in this area to provide guidance to the correct use of local materials, building techniques and architectural styles.
- \* Metal detecting: a boon and a bane as although it has brought about more people into archaeology and finds have been presented, there have many sites wantonly dug up and damaged

by detectorists. Better education and greater links between the Portable Antiquities Scheme and the finds liaison officer is key.

- ✱ Traditional buildings: in some respects the buildings of a landscape give the area its historic character and in the limestone landscapes are crudely in two groups: pre 1830 of local material, rendered limestone in historic villages. Post 1830 houses are usually made of brick and imported slate built during the coal mining era. In addition there are farms and country estates. There is strong evidence to suggest that these older buildings when upgraded sensitively can contribute to lower carbon footprint, be more easily repairable and contribute to the historic character where new build will struggle.
- ✱ Loss /replacement of historic features: loss of traditional features on old buildings such as doors and windows can radically alter the appearance and character of buildings and a design guide may help alleviate this movement
- ✱ Inappropriate or uninformed new build: house builders often build without due regard to the landscape context and consequently many new estates could be any where in the country. With some regard to the materials and fabric, design and aspect, new build can often be accommodated.
- ✱ Vandalism, graffiti, illegal motorbiking and 4x4 driving and lighting fires are common problems and causing localised damage to vegetation, geological sites and archaeology heritage sites.
- ✱ Development of greenfield sites for housing may lead to loss of landscape quality.
- ✱ Wind farm development can be seen as visual intrusion. The area is already home to five sites: Hare Hill, High Sharpley, Trimdon Grange, High Volts, Hart and Great Eppleton in Sunderland. Two other sites at Haswell (High Haswell and Haswell Moor) are permitted but not yet operational whilst applications have been refused at Hawthorn, South Sharpley, Quarrington Hill, Edder Acres and Peterlee. Further developments are likely with planning applications in a number of areas such as that at Junction House, Easington.

### Opportunities

- ✱ Development of training to upskill builders in traditional craft building techniques such as lime pointing and rendering.

- \* Development of design guides and day schools to promote traditional building techniques and vernacular styles to home owners and builders.
- \* The greater use of heritage sites will lead to a stronger presence, education and hopefully a reduction in the problems.
- \* Work of the Access Prioritisation of Growth Point in County Durham will deliver improvements to the Green Infrastructure before development begins.
- \* Heritage provides a strong driver for tourism and community pride and involvement in their environment

### 3.4 Learning Access and Community Engagement

Key document: *Learning Access and Community Engagement Plan for the Limestone Landscape Partnership July 2010 plb Ltd*

plb Ltd were commissioned by Limestone Landscape Partnership during the development phase of the project to identify and prioritise key projects and action planning to involve learning, access and community engagement. From this work the following barriers were identified:

#### Barriers

##### Introduction

A number of general barriers to access were gathered during the research for this plan. These have been divided into:

- \* **Physical and sensory barriers**, e.g. physical obstacles that limit access and barriers that restrict access for people with different sensory impairments such as visual impairments or being hard of hearing.
- \* **Intellectual barriers**, e.g. aspects that prevent people understanding or engaging with a subject or concept.
- \* **Social/ cultural barriers**, e.g. barriers that people perceive for social or cultural reasons that may well apply to some groups more than others.
- \* **Financial barriers**, e.g. aspects relating to costs that might prevent people engaging or taking part in activities.
- \* **Organisational barriers**, e.g. barriers relating to how the organisation runs projects/ activities – in this case the Limestone Landscape Partnership.

### Summary of Potential Barriers

#### Physical and sensory barriers

Physical and sensory barriers relating to general use of the countryside in the Limestone Landscapes Partnership area:

- \* main roads, busy roads, motorways and railways;
- \* inadequate public transport for some areas;
- \* special qualities of the Limestone Landscapes are hard to spot if you don't know what you're looking for e.g. rare plant combinations, fossils;
- \* quarries can be steep;
- \* quarries are hard to access and difficult to get in to;
- \* path maintenance issues, including vegetation issues; condition of paths;
- \* disjointed bridleway system;
- \* lack of seating along popular routes – appreciated by the 'active elderly';
- \* lack of public access on some areas of the footpath network;
- \* stiles and their maintenance;
- \* walking surfaces;
- \* farm animals;
- \* damaged infrastructure on Rights of Way e.g. by vandalism;
- \* lack of car parking for some sites.

#### Intellectual barriers

- \* Geology a little-known and understood subject area and there is very little interpretation and non specialist information about it available.
- \* Lack of knowledge about the specialist biodiversity of the area.
- \* Lack of knowledge about places and times of year when it's best to see biodiversity.

- ✱ Limestone Landscape Partnership area perceived as ‘ordinary’, nothing special – not valued in the same way as better known protected landscapes and therefore underused.
- ✱ Lack of ‘highlight’ sites/ features.
- ✱ “Limestone doesn’t mean much to us” (younger people).
- ✱ Lack of awareness of where the Rights of Way/ access routes into the countryside are. Absence of orientation aids/ wayfinding aids in the countryside to help guide you.
- ✱ Need for more information about routes/ distances to help people choose what they can do and see.
- ✱ Poor understanding of boundaries/ extent of the Limestone Landscape Partnership area – people want to know if they are included/ excluded.

#### **Social/ cultural barriers**

- ✱ People tend to go elsewhere (outside the area) for countryside recreation. Areas of the landscape inland from the coast are less well known as places to visit
- ✱ People don’t tend to know where the beauty spots are in the Limestone Landscape Partnership landscape, beyond their local area.
- ✱ Lack of confidence in some users in using the countryside.
- ✱ Lack of awareness about local circular routes and ‘easy access’ routes.
- ✱ People are not as aware of the RoW in general as they used to be.
- ✱ The Limestone Landscape Partnership area is not perceived as aesthetically pleasing or spiritually fulfilling and inspiring, compared to other more dramatic landscapes.
- ✱ East Durham is still seen as an “industrial” landscape – perception that it’s not a ‘nice’ area to visit.
- ✱ Local people still remember the closure of the pits – the land, although regenerated, still has associations – rather ‘spooky’ now – associations.
- ✱ Litter and dumping puts people off using parts of the countryside.

- \* Antisocial behaviour and graffiti put people off areas of the countryside, gangs putting people off using urban greenspace.
- \* Lack of car ownership amongst less well off communities restricts access.
- \* Lots of community groups have, to a varying degree, “done” community heritage projects and there is a perception that encouraging more of this activity is therefore not good use of funds.
- \* Generational change – young people don’t “play out” anymore so no culture of countryside engagement.
- \* Countryside pursuits seen as ‘for the older people’ where there is nothing to do for younger people when you get there.
- \* Poor awareness and understanding of County Durham from outside the region.
- \* High expectations of the partnership which have been mis-managed in past projects leading to scepticism about the potential of the Limestone Landscape Partnership.
- \* Concerns about feeling safe in the countryside e.g. women on their own.
- \* There is little provision for ‘extreme’ recreation within the area.

#### Financial barriers

- \* Lack of disposable income amongst some target audiences across the Limestone Landscape Partnership, corresponding lack of car ownership enhances isolation and exclusion.
- \* Schools cannot afford to release staff to undertake training away from school.
- \* Young people cannot afford to access some of the services and recreational activities they would like.
- \* Concerns about the funding sustainability of these projects.

#### Organisational barriers

- \* The Limestone Landscape area is not recognised as a whole, single entity on the ground.
- \* Lack of “young leaders” in the community, lack of volunteers to run activities/ tours, especially for younger people.



- ✱ Many schools are not yet involved in Learning Outside the Classroom and have yet to buy in to this approach.
- ✱ Community groups need lots of support on the ground and time to participate in projects.
- ✱ Aging voluntary sector – less active. Also ageing ‘Friends of’ groups – succession issues. In some cases,.
- ✱ In some cases ‘Friends of’ groups have difficulties with finding committed new people. However, older, more experienced people are an asset and can pass on to others
- ✱ Issues of access in relationship to private ownership in some project sites.
- ✱ Danger of duplicating events, project activities – need to be sure you have a good understanding of what else is going on in that locality.
- ✱ Wariness of Durham County Council-led partnership amongst potential delivery agents
- ✱ Myriad of small, localised grass routes organisations and societies all doing different things – hard to engage above the very local level.
- ✱ Facilities on the ground not geared up towards greater use by the community.

### 3.5 Other Risks

Other risks to the project are that the people do not engage with the planned events and activities or poor weather affects the turnout. Either way Limestone Landscapes will endeavour to publicise all events through a variety of media, including more social networking opportunities such as Facebook, Twitter and Bebo etc. Alternatives in the event of inclement weather will be sought.

This is the first time that a landscape scale approach has been attempted on the Durham Magnesian Limestone Plateau and consequently it is exciting, innovative and full of expectations and hope. Working in partnership has many potential pitfalls and difficulties but is based on the idea that the whole is greater than the sum of the parts, by working together the Partnership can achieve much more than if the individual partners work on their own.

Working together, through mutual co-operation and benefit over a number of local authority areas and a wide variety of government and non-government organisations is, by its very nature, difficult. Awareness of these difficulties and solutions to incorporate all views will, hopefully, allay any fears of the work that the Partnership sets out to do.

In the current economic downturn and the Coalition Government implementing budget cuts to the public sector which will include job cuts and subsequent difficulties many people will face, opportunities for philanthropic donations to the Landscape Trust Fund may be slim at best and non-existent at worst. In an era of austerity and belt tightening, this may also have the effect of companies not wanting to support the Partnership. Other funding from bodies may also be restricted or cut so that the Partnership may not succeed in getting its full allocation of match funding. A higher proportion of in-kind support may be necessary from organisations that are involved in the project although as budgets are tightened and staff who leave are not replaced, further difficulties may ensue. A more thorough investigation of possible funding and innovative solutions may be needed to ensure success.

## 4.0 AIMS AND OBJECTIVES TO DELIVER THE LP PROGRAMME OUTCOME

This section details how the projects will deliver the aims and objectives of the Limestone Landscape Partnership. The structure of the plan has been based on four headings:

1. Geodiversity
2. Biodiversity
3. Historic Environment
4. LACE (Learning, Access and Community Engagement)

Key documents: *Aims and objectives of the Limestone Landscape Partnership, Appendix 3: List of designations*

### Vision, Aims and Objectives of the Partnership

#### Vision

Working together in a landscape-scale Partnership to make a positive difference to quality of life and to the unique environment of the Magnesian Limestone area.

#### Aims

**A1.** Champion and co-ordinate informed, participative and integrated action on the environment across a broad range of sectors.

**A2.** Deliver environment-led actions that achieve social and economic benefits.

**A3.** Work with communities connected to the natural area to help shape a landscape that reflects their needs.

#### Objectives

**O1.** Conserve and enhance the unique biodiversity, geo-diversity, landscape, heritage and cultural assets of the partnership area and strengthen and develop local character and distinctiveness.

- O2.** Improve access to countryside and natural green-space, and opportunities for healthy 'green exercise' that will improve mental, physical and social well-being.
- O3.** Raise awareness of the environment of the partnership area as an educational resource and a source of local pride, creating stronger links between urban and rural areas.
- O4.** Empower local people to participate in activities and decision-making on the environment.
- O5.** Improve, promote and use the environment as a stimulus for economic regeneration and sustainable growth.
- O6.** Support and promote activities that help to mitigate, or adapt to, the impacts of climate change.
- O7.** Support and complement the work of partners through linking and securing resources and expertise.

## Some Common Themes

### Climate Change

The Partnership's objective O6 clearly recognises the importance of climate change and the possible effects:

Predicting exactly the effects of climate change is difficult, however, it has the potential to bring about large scale changes to the landscape and agriculture. Many of our objectives are linked to climate change and the following actions will mitigate against it:

- ✱ Areas of semi-natural vegetation will be encouraged to develop behind coastal cliffs as coastal erosion takes place.
- ✱ Develop multi-user paths and existing networks.
- ✱ Promote better management of corn stubbles over winter to benefit farmland birds and improve habitat connectivity.
- ✱ Enhance semi-natural habitats.
- ✱ Maintain and enhance remnant calcareous and neutral grasslands.
- ✱ Preserve woodlands found in the coastal denes to encourage diversity of native species.
- ✱ Create wetlands and ponds for the benefit of water voles and other native species.
- ✱ Promote management of invasive non-native species.

### Coastal erosion

The coast is subject to ongoing erosion and consequently, habitats are likely to be squeezed even further. Management of the coast is a very expensive affair and may prove impossible in the long term. Defending the headlands to reduce erosional forces of the sea's power is currently promoted as the most cost effective methods of containment. For more information go to <http://www.northeastsmp2.org.uk/>.

### Effects on the Environment

All events will have information regarding attending via public transport or if this is not possible, car lift schemes or motorised support will be provided. Our publicity will feature tips to reduce waste, conserve energy and think green. Paper based and web information will be available. Habitat restoration will have positive effects on the environment by delivering improvements to key sites resulting in greater numbers of

species of flora and fauna. Local sites will be promoted thus reducing the need to travel further a field.

### Partnerships and People

The landscape of the Durham Magnesian Limestone Plateau has been shaped by the work of its people over millennia and very little could be said to be natural. The majority of the land is in private ownership, although there is some public ownership in the form of Durham Wildlife Trust sites, National Trust and Council owned reserves. The future of the landscape will depend on how the owners, its people and staff manage it and it is hoped that this plan sets out a framework within which many different organisations can work together to enhance the landscape and opportunities it has to offer for communities that live there.

### Conservation

The Limestone Landscapes Partnership will work closely with all local authorities and other bodies to ensure the conservation and restoration of the landscape, the increase of biodiversity, development of geodiversity sites and preservation of limestone buildings and historic environment. By working together and sharing good practice from other schemes, the Partnership aims to conserve large sections of the landscape and restore it where time and money will allow.

### Participation and Learning

The Partnership aims to become a leading light in the development of opportunities for volunteering in the field and will endeavour to engage people through a wide variety of programmes and activities, either through the initial HLF funded period or beyond, acting as a networking organisation to signpost individuals and organisations. Opportunities for learning will occur in heritage related work such as heritage training days or day schools to understand and learn about the world class geology of the Durham Magnesian Limestone, its biodiversity and the importance of the historic environment.

Through our land management work, opportunities for sharing best practice for biodiversity and the historic environment will be encouraged through courses and seminars and links to wider bodies such as the Landscape Character Network.

### Access

Through a variety of physical works on the ground over a number of sites to bridleways, footpaths and other routes access to the sites will be improved. Intellectual access through the development of a dedicated website, downloadable pdf pages on key sites and walks will be available together with a number of modern technologies such as the use of audio

trails, MP3 files, Bluetooth and GPS technology. Consultations with communities have, however, also stressed the need to create printed leaflets on local walks and areas of interest and we will pursue this work where there are gaps and opportunities.

### **Maintenance**

On the issue of maintenance a pragmatic approach will be adopted so that much of the work to biodiversity sites will be on land held by public ownership, where sites are improved that are in private hands, the Partnership will engage landowners mostly through High Level Stewardship schemes. Annual payments will help maintain restoration schemes over a longer period.

Third party agreements will be drawn up with landowners where capital works such as drystone walling and hedgerow creation takes place

Works to buildings will be subject to a Conservation Management Statement (CMS) to ensure that it is maintained according to a plan laid by the Partnership's Historic Environment Task Group.

### **Management**

The Partnership envisions the work to be managed by project partners and the HLF funded team in the HLF period. Project partners will meet on a quarterly basis and be over seen by the Partnership steering group based on the Partnership's Terms of Reference (Appendix 6). In addition, sub-groups representing biodiversity, geodiversity and historic environment will also meet on a regular basis to ensure conflicts are resolved and work programmes are agreed and followed.

### **Managing information**

How we will collate, store and disseminate information and ensure that volunteers, staff and contractors will have access to it.

The Partnership will develop its website ([www.limestonelandscapes.info](http://www.limestonelandscapes.info)), launched during the development phase (see page 83) to create an interactive site that will be actively managed. Through this site, links to the many projects and how individuals, businesses and organisations can become involved and communicate between each other to develop the focus of the Partnership's work. The site will contain information sheets and downloadable materials of a mixed media nature.

Paper based leaflets, booklets and books will also be produced with a wide ranging distribution. Evidence from community workshops have consistently informed the Partnership that many people, particularly the



older generation, still prefer leaflets and that these need to be in Post Offices, surgeries, pharmacies, community centres, working men's clubs.

In the light of recent evidence<sup>13</sup>, a sizeable minority (10million) of the population have never visited the internet.

In the following action plan, those actions in red and emboldened are areas of work that have been identified for action within the time frame of the HLF funding phase.

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<sup>13</sup> Radio 4 today programme 12th July 2010

## Action Plan for the Durham Magnesian Limestone Plateau

BIODIVERSITY						
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost		
B1 Develop long-term management strategy and maintenance plan for biodiversity on the DMLP	B1.1 Prepare management plan for biodiversity interest for the project area including a 10 year maintenance plan	1-7	A	££		
	B1.2 Update management plan in 5 years time	1 -7	B	££		
B2 Identify opportunities for biodiversity enhancement works on land in the control of partners (and private) in the project area –for example through habitat creation	B2.1 Inventory and survey of land. Assess suitability of habitat improvements and habitat creation for nature conservation purposes	1,3,4,6,7	B	££		
B3 Seek to maintain and enhance the current wildlife resource across a wider network of sites	B3.1 Identify and map less intensively managed or area which could provide natural connections between existing habitat fragments to allow habitats and species	1,2,3,6,7	B	£		
B4 Maintain and increase grassland habitat where opportunities exist	B4.1 Undertake research to provide recommendations and a prioritised programme of works for Magnesian Limestone, Lowland acid grasslands and Lowland Meadows.	1,6	A	££		
	<b>B4.2 Commission works to improve grassland sites to ensure biodiversity is maximised</b>	1,2,3,6	A	£££		
B5 Maintain and increase woodland cover where opportunities exist	B5.1 Undertake condition assessment and determine best management options to ensure that all semi-natural woodland are protected and enhanced	1,6	A	-£		

BIODIVERSITY					
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost	
B5 Maintain and increase woodland cover where opportunities exist	B5.2 Identify ideal sites for new native woodland whilst ensuring that other valuable habitats are protected and enhanced  <b>B5.3 Encourage the uptake of existing schemes such as the English Woodland Grant Scheme</b>	1,2,3,6	B	-£	
B6 Assess suitability of environmental assets of landowners for Higher Level Stewardship and other agri-environmental schemes or funding schemes	<b>B6.1 Promote up take of agri-environment schemes and encourage measures which support Biodiversity Action Plan species and habitats where they fit the Environmental Stewardship funding</b>	1,3,6	A	-£	
B7 Protect and prevent loss of veteran and parkland trees and achieve smooth age providing continuous availability of dead wood habitats	B7.1 Inventory, survey and condition assessment of veteran, potential veteran and parkland trees to create GIS database	1,6	B	-£	
B8 Maintain and increase wetland and fen habitat where opportunities exist	B8.1 Undertake research to provide recommendations and a prioritised programme of works for fens and ponds	1,6	A	££	
	<b>B8.2 Commission works to improve ponds and fens to ensure biodiversity is maximised</b>	1,6	A	£££	

LEARNING ACCESS and COMMUNITY ENGAGEMENT					
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost	
L1 Identify opportunities to develop recreational routes including circular walks and settlement routes particularly where there is a heritage interest	L1.1 Prepare prioritisation process to identify routes	1-7	A	£	
	<b>L1.2 Work with Local authority PROW officers to develop potential routes</b>	1-7	A	££	
L2 Provide all people with the opportunity to make a difference to the long-term conservation, enhancement and enjoyment and to contribute to personal health and well-being	L2.1 Opportunities for volunteers to carry out activities benefiting wildlife and heritage through a health programme	1,2,3,4,5,6	A	££	
	<b>L2.2 Programme of guided walks</b>	2,3,4,6	B	££	
	L2.3 An apprenticeship scheme working with existing	1,2,3,4,5,6	B	££	
L3 Increase the accessibility of the routes to enable those with limited mobility/ senses better access	<b>L3.1 Development of sensory trails</b>	2,3,4	B	££	
	L3.2 Guided walks with a BSL interpreter	2,3,4,6	B	£	
	L3.3 Training for local tourism operators on disability awareness				
L4 Production of a range of interpretation media	<b>L4.1 Produce interpretation plan</b>	3,4,5,6	A	£	
	<b>L4.2 Creation of a range of media products</b>	3,4,5,6,7	A	££	
	<b>L4.3 Development of a web-site</b>	1-7	A	££	
	<b>L4.4 Use of audio-visual, MP3 downloads, audio trails</b>	1-7	B	££	

LEARNING ACCESS and COMMUNITY ENGAGEMENT					
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost	
L5 Provide opportunities to promote understanding of the natural and cultural heritage of the area through a programme of formal or informal education or training to encourage schools and groups to become involved	<b>L5.1 Produce education and training plan</b>	1, 3, 4	A	££	
	<b>L5.2 School visit programme with quarry operators and site owners</b>	3, 6	B	££	
	<b>L5.3 Training teachers, staff and volunteers on the world class geology, biodiversity and historic environment</b>	3, 4, 6	B	£	
	<b>L5.4 Production of teaching packs and resources</b>	3, 4, 6	B	£	
L6 Undertake ways in which to increase tourism and visitors the area by improving the infrastructure, both physical and intellectual access	<b>L6.1 Develop Tourism and visitor strategy</b>	3, 5, 6, 7	A	££	
	<b>L6.2 Support and develop links with local business such as farming and transport operators to develop activity packages</b>	5, 6	B	££	
L7 Provide a cohesive framework for communication issues including branding and marketing, interpretation mechanisms and products	<b>L7.1 Develop Communications and Interpretation Strategy</b>	4, 5, 6	B	££	
	<b>L7.2 Communications include website design style guide, newsletters, launch events, translations into Braille/BSL</b>	4, 5, 6	B	££	
	<b>L7.3 Work with community groups, wildlife and local history societies to engage them into the wider aims of the Limestone Landscape Partnership</b>	4, 5, 6	B	££	

HISTORIC ENVIRONMENT					
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost	
HE1 Conserve and enhance heritage features	HE1.1 Commission work to ascertain importance of the historic environment and create an audit of sites within the project area	1,3,5	A	££	
	HE1.2 Develop an action plan to prioritise work on historic environment sites	1,3,5	A	£	
	<b>HE1.3 Commission works to consolidate, restore or refurbish heritage features</b>	1,3,5	A	£	
HE2 Conserve and enhance the most important buildings and structures, particularly those that are listed buildings	HE2.1 By consultation with local historic societies, community groups and residents ascertain the most important buildings in the project area	1,3,5	A	£	
	HE2.2 Prioritise a list of known historic environment buildings	1,3,5	A	£	
	<b>HE2.3 Commission works to conserve and enhance buildings, particularly those of traditional construction</b>	1,3,5	A	£££	
HE3 Undertake a detailed survey of interesting historical structures	HE3.1 By consultation with local historic societies, community groups and residents ascertain the most important structures such as boundary markers, road signs, statues and historical objects in the project area	1,3,5	B	£	
	<b>HE3.2 Ensure these objects are conserved and enhanced in consultation with local groups and societies</b>	1,3,5	B	£	

HISTORIC ENVIRONMENT				
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost
HE4 Take action to enhance village and town environments in collaboration with local communities and considering future enhancements opportunities	HE4.1 Develop a village atlas scheme to work with a local community group and specialist to produce a heritage report based on its biodiversity, geodiversity and historic environment links	1,3,4,5,6	A	££
	HE4.2 For each village develop an action plan of priorities on work needed to conserve and enhance its historic environment	1,3,4,5,6	B	£



<b>GEODIVERSITY</b>					
Sub-objective =HLF target	Action	Benefits Main Objectives	Priority	Cost	
G1 Develop long-term management strategy and maintenance plan for geodiversity on the DMLP	G1.1 Prepare management plan for geodiversity interest for the project area including a 10 year maintenance plan	1-7	A	££	
	G1.2 B1.2 Update management plan in 5 years time	1-7	B	££	
G2 Identify opportunities for geodiversity enhancement works on land in the control of partners (and private) in the project area –for example through cleaning of faces and enhancement works	G2.1 Inventory and survey of sites. Create an audit and action plan on geodiversity sites	1,6,7	A	££	
	G2.2 Identify opportunities for making links between biodiversity and historic environment sites	1,6	A	£	
	<b>G2.3 Commission a programme of works to enhance sites, clean faces, improve access</b>	1-6	A	£££	
G3 Produce an interpretation plan	G3.1 Using a wide variety of media, create interpretation plan to use the world class geology of the project area	1,2,4,6	A	£	
	G3.2 Work with local authorities, local geological associations and community groups to develop sites	1,3,4,6	B	£	
G4 Research all work to date	<b>G4.1 Produce literature on the world class geology both paper based and web-based</b>	3,4,6	A	££	
G5 Educational and training plan	<b>G5.1 Develop sites to maximise their interpretational and educational use</b>	3,6	A	££	
	<b>G5.2 Work with schools and quarries to develop teaching and training opportunities</b>	2,3,4,5,6	B	B	



## 5.0 SCHEME PLAN AND COSTS

### Selection Process

The projects that have been chosen to go forward have come about through a robust and transparent process within the task group and lead officers from February to July 2010. In order to make selections, we referred to the original bid document, the audit and action plans from the biodiversity, geodiversity, historic environment and local buildings themes which gave a more strategic view of the LPS. Originally, projects were assessed for the following criteria:

HLF Project Selection Criteria: The Project:

1. meets at least one the Limestone Landscapes Partnership objectives;
2. contributes to other Limestone Landscapes Partnership objectives;
3. contributes to meeting HLF priorities;
4. lies within, or specifically involves the Durham Magnesian Limestone Plateau National Character Area;
5. has support from a partner or other organisation;
6. has likelihood of match funding;
7. has realistic likelihood of being achieved within the time scale;
8. will produce long term benefits eg physical improvements, capacity building;
9. links to other Limestone Landscapes projects.

In February 2010, a long list of over 90 projects was put forward to the task group with an approximate cost of £28m, taken from the consultants' reports and Stage 1 project ideas. Full details of these projects are listed in the consultants' reports.

### Project Development and Process

From these initial set of projects, together with the Stage 1 ideas, delegated powers were given to officers in order to produce a more reasonable list. Projects were reviewed and where themes emerged, amalgamated. The number of projects was reduced accordingly and in March 2010, a smaller number of projects were assessed by the steering

group and 22 selected to be worked up/ scoped and costed out. Another 12 were put on the reserve list and are shown here:

#### Summary sheet of Projects

<b>Programme A</b>	<b>Conservation and restoration</b>
A1	Kingdom of Quarries
A2	The Towers and Hills Project
A3	Field Boundary Restoration
A4	Dene Diversity
A5	Copts and The Law
A6	Flexigraze project
A7	Coastal Grassland Projects
A8	Escarpment Spurs Projects
A9	Escarpment Ridge Projects
<b>Programme B</b>	<b>Community Engagement</b>
B1	Reef Hills Project, focussing on Tunstall Hills
B2	Limestone Festival
B3	Village Atlas
B4	Children's Club
B5	Lime Kiln Consolidation and Industrial heritage of Coxhoe
B6	Coxhoe Allotments Community Garden
B7	Lost in a sea of rig and furrow
B8	Relics rising – awareness and adoption
B9	A defended land
<b>Programme C</b>	<b>Access and learning</b>
C1	Coal Countryside Counts
C2	Quarries live!
C3	Trails and tribulations
C4	Outreach Programme
C5	Book production
C6	Bishop Middleham Palace
C7	Farming Futures
C8	Leg it across the Limestone Landscapes
<b>Programme D</b>	<b>Training and Skills</b>
D1	D1 Field Training for Staff/Volunteers
D2	D2 Lime Cordially
D3	D3 Community Archaeology
D4	D4 Training for Tourism
D5	D5 Land management best practice
D6	D6 Heritage and training days
D7	D7 Forest School Programme
D8	D8 Learning through the Outside Classroom

Further work in relation to costings and budgets and a review of the Stage 1 proposals produced a final set of projects. **Appendix 5** gives an overview of the projects with information on the project, its audience, benefits and outputs and how much it will cost. Further details including partners, links, funding potential, risks and costs can be found in the Project Sheets. In the following section, brief descriptions are given for each project:

## **Theme A: Conservation and Restoration**

### **LL1 Kingdom Of Quarries**

This project seeks to champion the world class geology in disused quarries. Work will include cleaning up rock faces, interpretation, signposting, improving paths, fossil casts and trails.



*Cleadon Walls*

### **LL2 Field Boundary Restoration**

To provide financial support through third party grant for the restoration or re-establishment of hedgerows throughout the area and dry stone walls in the Cleadon Hills.

### **LL3 Coastal Grassland Project**

To improve habitat quality and connectivity within and between sites on the coast, particularly land in public ownership.

### **LL4 Escarpment Spurs Project**

To improve habitat quality and connectivity within and between sites on the escarpment spurs.

## **Theme B: Increasing Community Participation**

### **LL5 Tunstall Hills Reef Project**

To work with Tunstall Hills Protection Group to develop the site for interpretation, learning and to clean areas for fossil identification.

### **LL6 Village Atlas**

To create a village atlas for a number of villages within the Limestone Landscapes area. Each village will work with a historic specialist to explore the history and biodiversity and geodiversity links and collectively will form an Atlas of the area.

### **LL7 Lost in a Sea of Rig and Furrow**

To confirm the survival of historic rig and furrow and ensure preservation as an important element of historic landscape. A typology and dating guide will be produced and a management plan that will inform to target the HLS scheme. Work with biodiversity interests to protect ancient rig and furrow as special areas of least disturbed/improved land.

### **LL8 Relics Rising – Key Buildings**

To restore or consolidate a number of key buildings within the project area working with historic groups and volunteers.

### **LL9 A Defended Land**

To conserve and interpret a significant coastal stretch of the region's anti-invasion history, linking existing centres and enable local people to learn about the history of local coastal defence and wider military history of the area.

### **LL10 Limestone Festival**

To create a major festival to celebrate and promote the Durham Magnesian Limestone during the middle two weeks of June when the botanical interest is at its height.

### **LL11 Children's Club**

To create a club(s) where children aged 6-12 can learn about the geology and history of the area and wildlife, features and practices attached to them.

## **Theme C: Access and Learning**

### **LL12 Coal Countryside Counts**

To enable local people to explore a hidden dimension to disused colliery sites and link geology and biodiversity on former mine sites, highlight special qualities of the species rich grasslands and wetland that often develops.

### **LL13 Quarries Live!**

To champion the world class geology, economic importance and significance of working quarries through site visits, talks and educational programmes.

### **LL14 Farming Futures**

To integrate farming and biodiversity conservation into local community life by exploring links between past and future land use relating to people and wildlife.

### **LL15 Leg it Across the Limestone Landscapes**

To improve a number of key public rights of way, identified by local communities for their importance in providing safe and reliable access to areas of countryside and to create opportunities to visit sites of geological, historical, ecological and cultural significance thus enabling residents and visitors to improve their physical, emotional and mental health through exercise and contact with the environment.

### **LL16 Green Exercise**

To improve physical access to multi-user paths and engage local communities in embarking on green exercise programmes;

To inspire behavioural change to enable participation in exercise and develop and protect the green infrastructure.

### **LL17 Trails and Tribulations**

To create a variety of trails to interpret the geology and the built environment, using a range of techniques.

### **LL18 Book Production**

To write, print and distribute a series of books on the Durham Magnesian Limestone Plateau. They will be: Geodiversity, Industrial Archaeology and Architecture / Archaeology.



Barley © [www.northeastwildlife.co.uk](http://www.northeastwildlife.co.uk)

## Theme D: Training and Skills

### LL19 Community Archaeology

To enable members of local communities to discover more about their heritage through active participation in archaeological research projects and to learn techniques of excavation and survey.

To support activity by local groups and thus encourage more people to join them helping to ensure their long-term future.

To address specific research objectives as defined in the North East Regional Research Framework for the Historic Environment.

### LL20 Field Training for Staff and Volunteers

To develop a number of courses in geology, biodiversity surveying, taxonomy, field identification and land management for staff and volunteers.

### LL21 Day School Programme

To develop courses in biodiversity, geodiversity and historic environment aimed at the general public to last one day each.

### LL22 Land Management Best Practice

To educate landowners/land managers conservation staff on habitat restoration methods by bringing together information which will be available in different journals and with UK practitioners to improve the accessibility of such information.



**LL23 Heritage and Training Days**

To provide a series of courses on heritage skills such as hedge laying, drystone walling, use of lime mortars, historic building maintenance; improve awareness for homeowners of houses built pre 1919; provide training and education in countryside management skills; provide training to craftsmen and contractors in traditional building skills and also for social landlords.

**LL24 Learning Through the Outside Classroom**

To raise the competence of teachers in using the outside classroom as a resource; provide resources to teachers to gain maximum benefit from learning outside the classroom; provide expert leaders to enhance study visits within the project area and support a range of educational visits that help practitioners engage with and understand the Durham Mag-Lime.

**LL25 Farmland Bird Initiative**

To raise awareness and train landowners in how to develop land and make it more attractive for birdlife.



## 6.0 SUSTAINABILITY

### 6.1 Just the Beginning

The Limestone Landscapes Partnership has always insisted that the work that it does should not be funding led, in that short term, fast injections of cash will have some success but less likely to see the long term changes that its vision, aims and objectives hopes to see.

The scoping work that this development period has shown that there could be over £28million worth of work through 90 or so projects, indicating that beyond HLF funding period there will be much work to do. The Partnership and the individual partners are keen to take forward projects in the long term, once funding becomes available.

A key to this is the development of the Limestone Landscapes Fund. This was set up in July 2010 to create long term funding solutions for the Limestone Landscapes Partnership. Working with the Partnership and managed by the County Durham Community Foundation, investments will be used to create a revenue and capital fund. Initial funds have been invested from partners, whilst it is hoped that future sponsorships from businesses, companies, organisations and individuals will allow funds to grow.

### 6.2 Staff and Linkages with Community Groups

The core team at Limestone Landscapes will be instrumental in forging links with the many community groups that exist in the area. Through strengthening the network and encouraging, training and enthusing volunteers and helping them develop, many will be able to continue their work with independent funding. Together, they will also link with experts in the field and at the Councils, thus giving them confidence that further support will be there once the HLF pot is exhausted. It is also hoped that through this legacy groups will attract larger numbers of people joining their ranks and new younger members – a concern for many local community groups.

### 6.3 In County Durham Area Action Partnerships have bridged the gap of losing the second tier District Councils and are able to use local knowledge to drive forward change. Local Strategic Partnerships in other local authorities have a similar power and in future these bodies will be working more closely with the Limestone Landscapes Partnership.

- 6.4 Through the extensive heritage skills training, a legacy of drystone walling, hedgelaying, blacksmithing, green woodworking and archaeological excavation experience will remain. The involvement of volunteers in delivering and maintaining the scheme through a variety of projects is a key element in securing the long term sustainability. Through this work, local people will have the opportunity of involving them in decision making about their heritage.
- 6.5 A series of intensive day-schools, workshops and lectures would leave a better informed body of professionals and volunteers who would be able to cascade this information to other people.
- 6.6 The proposals suggest a wide range of publicity leaflets, booklets, books and interpretation which added with a fully interactive website with downloadable materials, audio trails and other new methods in multimedia, will provide a longer term availability of educational materials. The website was launched in August 2010 and can be found at [www.limestonelandscapes.info](http://www.limestonelandscapes.info).
- 6.7 It is envisaged that as the Limestone Landscapes Landscape Partnership Scheme is delivered much closer ties with Durham Heritage Coast will develop.
- 6.8 For many people involved in Landscape Partnership it is uncharted territory with new experiences and knowledge building to create change on a landscape scale. Such innovative work needs to be captured and built upon and used as best practice. Use of press materials, publicity and website will be useful here.
- 6.9 Where Councils recognise the value of the Partnership, further funding and mainstreaming may become a possibility.
- 6.10 It is now widely accepted that ecosystem services are not only limited, but also that they are threatened by human activities. The value of the natural environment is not adequately recognised by society and it is crucial that people understand the links between their own well-being and the value of services provided by the natural environment. Future projects may involve the delivery of ecosystem services.

- 6.11 The improvement of access at some key sites such as better surfacing, stiles and fencing will be a lasting legacy of the project whilst longer term management of land may contribute to better conditions for a wide variety of flora and fauna species.
- 6.12 The Biodiversity Action Plan Partnership report will influence the north east regional Higher Level Stewardship targeting and sites are already in the pipeline for future schemes.



*Nr Old Cassop © Mick Garratt*



## 7.0 EVALUATION AND MONITORING FRAMEWORK

The following provides a framework for the ongoing monitoring and evaluation of the project. Monitoring will be conducted by project staff and volunteers using the milestones associated with the timetabled work each year, the aim being to ensure that the project delivers its agreed programme within the required timescales and budget. Monitoring will also provide a simple 'before' and 'after' record of the project work as it progresses to completion.

The main purposes of the monitoring will be to ensure:

**Accountability and value for money** – to help the lead partners and funders decide whether time and money has been properly spent and outputs delivered, and to enable reporting to be delivered to those that are responsible for the project and its funding.

**Management** – to help the managers and partners in their tasks of managing risk and making key decisions to ensure the programme's execution might be made more effective and/or efficient in the time that remains.

The evaluation will attempt to analyse and value some of the wider benefits drawn from important strategic outcomes. These are in turn linked to national and local benchmarked indicators. Thus the evaluation will attempt to assess the success of the project in terms of its impact within a wider context. The evaluation is intended as a more flexible but no less rigorous process throughout the life of the project, aiming to ensure that the partners and participants gain the maximum benefits from its progress. Part of this is to support the participants in their own learning and empowerment, and to ensure that lessons learned are available to commentators and others in the wider world:

**Learning** – to help all those involved and others gain insights and understanding that might be useful elsewhere or in successor projects.

**Empowerment** – to enhance the skills, knowledge and commitment of the participants and to make this available to their colleagues and contacts.

The evaluation is likely to be far more qualitative than the monitoring, which can be reasonably quantitative. The following presents a simple outline of the two elements that will form the gathering and analysis of data to support both the monitoring and evaluation processes:

1. Documentary evidence. The project partners, staff and volunteer participants will collect, analyse and report on:

- \* The Limestone Landscape's Conservation Action Plan and the yearly updates, taking timetables, budgets and milestones as the main reference points.
- \* Internal progress reports and HLF's PM reporting forms.
- \* Papers and minutes of meetings, including committee papers for the lead partners.
- \* Diaries, timesheets and volunteering recording forms.
- \* Financial data, showing cash flow and budgets.
- \* Procurement records, showing all transactions.
- \* Staff records, demonstrating the ongoing management and appraisal of all staff posts within the partner organisations/core project team.
- \* Newsletters and press cuttings.
- \* A copy of the products of interpretation and other communication tools produced through the project.
- \* A photographic record of 'before', 'during' and 'after' project work and a collection of video material produced.

2. Telephone interviews, paper questionnaires and feedback forms.

Relevant interviewees will be drawn from amongst the project's principal areas of benefit on the ground. The themes of questioning will be developed as the project progresses but will be within a structured framework – see the themes for the indicators in the table below. The framework for this draws on work done during the Learning, Access and Community Engagement work during the development phase of the project, work on the 'Experiencing Landscapes' carried out on the East Durham Magnesian Limestone Plateau NCA's by Natural England in October 2009, alongside pre-existing, or ongoing visitor/or other surveys conducted by agencies and partners. These will provide some of the 'baseline' context for the questions. The themes will be extended using relevant national and regional benchmark indicators.



The use of indicators and different measurement techniques in the evaluation of the project.

The following indicator set examining output data from the projects provides the beginnings of a framework for providing a quantitative methodology for evaluating the programme, using indicators relevant to the main objectives:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
<b>A Advice and Support Activities</b>						
1 Landowners / Farmers engaged	No.	Ha				
2 Advisory visits made	No.					
3 Advisory reports / plans written	No.					
4 Wildlife Surveys Written	No.	Ha				
5 Management Plans written	No.	Ha				
6 Management Agreements put in place	No.	Ha				
7 Project grants awarded	No.	Ha	£			
8 Successful agri-environment grant applications made / facilitated	No.	Ha	£			
9 Successful other grants made / facilitated	No.	Ha	£			
10 Land Purchase	No.	Ha				
<b>B Biodiversity and Landscape Features</b>						
2 Designations - Heritage Coast	No.	Ha				
3 Designations - LNR	No.	Ha				
4 Designations - Local Site	No.	Ha				
6 Designations - NNR	No.	Ha				
8 Designations - Registered Battleground	No.	Ha				
10 Designations - RIGS	No.	Ha				
13 Designations - SSSI	No.	Ha				
<b>Grassland and Heath</b>						
2 Lowland Calcareous Grassland	Maintain extent	Achieve condition	Restore	Expand		
4 Lowland Heathland	Maintain extent	Achieve condition	Restore	Expand		

5	Lowland Meadow	Maintain extent	Achieve condition	Restore	Expand		
	Woodland						
1	Lowland Beech & Yew Woodland	Maintain extent	Achieve condition	Restore	Expand		
2	Lowland Mixed Deciduous Woodland	Maintain extent	Achieve condition	Restore	Expand		
10	Restoration of PAWS	Maintain extent	Achieve condition	Restore	Expand		
	Wetland						
2	Lowland Fen	Maintain extent	Achieve condition	Restore	Expand		
4	Reedbed	Maintain extent	Achieve condition	Restore	Expand		
6	Marsh, Swamp, Standing Open Water and Streams	Maintain extent	Achieve condition	Restore	Expand		
	Waterbodies						
2	Ponds	Maintain extent	Achieve condition	Restore	Expand		
3	Rivers	Maintain extent	Achieve condition	Restore	Expand		
4	Riparian habitat	Maintain extent	Achieve condition	Restore	Expand		
	Coastal and Marine						
2	Coastal Saltmarsh	Maintain extent	Achieve condition	Restore	Expand		
3	Coastal Sand Dune	Maintain extent	Achieve condition	Restore	Expand		
4	Maritime Cliff and Slope	Maintain extent	Achieve condition	Restore	Expand		
5	Intertidal Mudflats	Maintain extent	Achieve condition	Restore	Expand		
6	Reefs and Lagoons	Maintain extent	Achieve condition	Restore	Expand		
	Other Priority Habitats						
2	Hedgerows	Maintain extent	Achieve condition	Restore	Expand		
3	Inland Rock Outcrop and Scree Habitat	Maintain extent	Achieve condition	Restore	Expand		
5	Open Mosaic Habitats on Previously Developed Land	Maintain extent	Achieve condition	Restore	Expand		
	Species Projects						
2a	Northern Brown Argus Butterfly	Range	Population Size	Brief Details			
	<b>C Built Heritage Features</b>						
3	Grade 1/A Listed	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
4	Grade 2*/B Listed	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
5	Grade 2/C/C(S) Listed	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
6	Registered Building at Risk	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
7	Undesignated historic building or feature	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
8	Registered Site or Monument	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
9	Scheduled Ancient Monument	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
10	Industrial heritage site	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
	Features						
1	Civil	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
3	Defence	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
4	Domestic / Residential	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
7	Memorial	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
	<b>D Industrial Maritime and Transport Features</b>						
2	Communications	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
3	Manufacturing	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
7	Aqueduct	Recorded	Repaired	Restored	Conserved	Interpreted	Re-used
	<b>E Museums, Libraries and Archives Projects</b>						
4	Museum	Catalogued	Repaired	Restored	Exhibited	Interpreted	Stored
5	Other Collection / Moveable Object	Catalogued	Repaired	Restored	Exhibited	Interpreted	Stored
	<b>F Participation and Learning Activities</b>						
1	Primary Schools worked with	No.	Beneficiaries				
2	Secondary Schools worked with	No.	Beneficiaries				
3	Colleges/universities worked with	No.	Beneficiaries				
4	Youth groups worked with	No.	Beneficiaries				
5	Community groups worked with	No.	Beneficiaries				
6	Community consultation events held	No.	Beneficiaries				

<b>Learning</b>	Activities	Beneficiaries				
Learning resources/packs	Activities	Beneficiaries				
School visits to site	Activities	Beneficiaries				
Outreach visits to schools	Activities	Beneficiaries				
Vocational learning sessions for pupils/students	Activities	Beneficiaries				
Family learning activities	Activities	Beneficiaries				
Adult learning activities	Activities	Beneficiaries				
Teacher training	Activities	Beneficiaries				
Village/parish research projects	Activities	Beneficiaries				
Cultural tradition projects	Activities	Beneficiaries				
Open days	Activities	Beneficiaries				
Festivals/re-enactments etc	Activities	Beneficiaries				
Exhibitions/displays	Activities	Beneficiaries				
Guided tours/walks	Activities	Beneficiaries				
Tours/walks for disabled people	Activities	Beneficiaries				
Creation of new space for learning	Activities	Beneficiaries				
<b>G Access</b>						
<b>Area and Linear Access</b>						
2 Footpaths	Km New	Km Improved				
3 Bridleways	Km New	Km Improved				
4 Cycle tracks	Km New	Km Improved				
5 Green lanes	Km New	Km Improved				
6 Pathway accessible for disabled people	Km New	Km Improved				
7 Other routes/tracks/paths	Km New	Km Improved				
<b>Trails, Projects, Equipment</b>						
1 Nature Trails	No New	No Improved				
2 Nature Trails	Km New	Km Improved				
3 Heritage Trails	No New	No Improved				
4 Heritage Trails	Km New	Km Improved				
5 Erosion control projects	No New	No Improved				
6 Disabled access equipment	No New	No Improved				
8 Guided Walk Projects	No Activities	No Beneficiaries				
9 Health Projects	No Activities	No Beneficiaries				
<b>Intellectual Access</b>						
1 Visitor information facility	No New	No Improved				
2 Interpretation boards	No New	No Improved				
3 Audio, tactile and BSL interpretation	No New	No Improved				
4 Leaflets	No New	No Improved				
5 Guides/booklets	No New	No Improved				
6 Websites	No New	No Improved				
7 DVD/Films	No New	No Improved				
8 Blogs	No New	No Improved				
9 Community archive	No New	No Improved				
<b>H Visitors</b>						
a Visitor numbers for each year	No Visitors					
b Age Profile	%					
c Gender Profile	%					
d Ethnic Profile	%					
f Socio-Economic Profile.	%					
g Disabilities	%					
<b>I Volunteers</b>						
1 How many volunteers have/will have been involved in the project?	No.					
2 How many volunteer hours have they/will they have delivered?	No.					
b Volunteer Age Profile	%					
c Volunteer Gender Profile	%					
d Volunteer Ethnic Profile	%					
f Volunteer Socio-Economic Profile.	%					
g Volunteer Disabilities	%					

<b>J</b>	<b>Employment</b>					
1	Jobs Created in Conservation & heritage	FTE Internal Jobs	FTE External Jobs			
2	Jobs Created in Learning, interpretation and outreach	FTE Internal Jobs	FTE External Jobs			
3	Jobs Created in Project management and administration	FTE Internal Jobs	FTE External Jobs			
1	Jobs Safeguarded in Conservation & heritage	FTE Internal Jobs	FTE External Jobs			
2	Jobs Safeguarded in Learning, interpretation and outreach	FTE Internal Jobs	FTE External Jobs			
3	Jobs Safeguarded in Project management and administration	FTE Internal Jobs	FTE External Jobs			
c	Employee Age Profile	%				
d	Employee Gender Profile	%				
e	Employee Ethnic Profile	%				
g	Employee Disabilities	%				
<b>K</b>	<b>Training and Skills</b>					
	<b>Land Management / Rural Businesses</b>					
1	Land and habitat management training	No Courses	No Days	No People trained		
2	Rural skills and heritage conservation training	No Courses	No Days	No People trained		
3	Tourism and business development training	No Courses	No Days	No People trained		
4	Participation/learning activity training	No Courses	No Days	No People trained		
4	Other training courses	No Courses	No Days	No People trained		
5	Apprenticeships	No Courses	No Days	No People trained		
6	Work placements	No Courses	No Days	No People trained		
	<b>Volunteers</b>					
1	Land and habitat management training	No Courses	No Days	No People trained		
2	Rural skills and heritage conservation training	No Courses	No Days	No People trained		
3	Tourism and business development training	No Courses	No Days	No People trained		
4	Participation/learning activity training	No Courses	No Days	No People trained		
4	Other training courses	No Courses	No Days	No People trained		
5	Apprenticeships	No Courses	No Days	No People trained		
6	Work placements	No Courses	No Days	No People trained		
	<b>Staff</b>					
1	Land and habitat management training	No Courses	No Days	No People trained		
2	Rural skills and heritage conservation training	No Courses	No Days	No People trained		
3	Tourism and business development training	No Courses	No Days	No People trained		
4	Participation/learning activity training	No Courses	No Days	No People trained		
4	Other training courses	No Courses	No Days	No People trained		
5	Apprenticeships	No Courses	No Days	No People trained		
6	Work placements	No Courses	No Days	No People trained		
b	Trainee Age Profile	%				
c	Trainee Gender Profile	%				
d	Trainee Ethnic Profile	%				
e	Trainee Disabilities	%				
	<b>Skills gained through training</b>					
1	Animal husbandry & bee-keeping	Yes / No				
2	Archaeological skills	Yes / No				
3	Archiving	Yes / No				
5	Building skills	Yes / No				
6	Business skills	Yes / No				
8	Learning and interpretation skills	Yes / No				
9	Habitat & land management	Yes / No				
10	Health & safety	Yes / No				
11	Heritage tourism skills	Yes / No				
12	Horticultural skills	Yes / No				
13	Industrial maritime transport skills	Yes / No				
14	Local history	Yes / No				
16	Managing groups	Yes / No				
17	Museum skills	Yes / No				
18	Rural skills (inc walling, hedging and paths)	Yes / No				
19	Species identification/biological recording skills	Yes / No				
21	Wood-turning	Yes / No				
22	Working with people	Yes / No				

These indicators will be reported on by the individual projects. Much of the reporting will be done at a project level on a quarterly basis as part of the quarterly claims process, however the headline indicators will be collated at a whole project level on an annual basis as part of the annual review process. The above framework is not considered to be a complete or finalised document and we will continue to review this framework for monitoring and evaluation throughout the life of the Limestone Landscapes Project.

At the end of each project an evaluation will be carried out with long-term participants where practicable. This will be in the form of “Prove it – 2” methodology developed by the New Economics Foundation and Groundwork.

### **Final Evaluation and Reporting**

Final evaluation is a significant activity and the results and successes of the project will be drawn together and presented in report format and placed on the web-site and partners' linked sites. The final report will look at the benefits that individual projects have brought to the landscape in quantitative, descriptive and qualitative terms. In addition to this the report will bring together data around the Programme level successes and lessons learnt.

Where delivering innovation, time and effort should be spent in presenting and disseminating the results to ensure that others have the opportunity of learning from the lessons learned. This will be delivered by project staff and other participants who will attend and present papers at conferences; they will offer training and write reports and information sheets on relevant topics.



## 8.0 ADOPTION AND REVIEW

Initially the LCAP will be adopted by the Steering Group before taken to the new Management Board to be established, made up of a larger group of members and officers from the local authorities an a wider group of regional and local groups as specified in the Terms of Reference. It will be this group who will be responsible for monitoring and making sure the LCAP is used. A thorough process of annual MOT checks will take place on the LCAP. During the lifetime of the Heritage Lottery Fund's Landscape Partnership Scheme, the Programme Manager will be responsible for ensuring the work programme, that stems from the plan, is followed.

We intend to publish the plan on our webpage [www.limestonelandscapes.info](http://www.limestonelandscapes.info) and all authorities and organisations that are partners will have copies.





### BIBLIOGRAPHY

#### Geodiversity:

Limestone Landscapes – A geodiversity audit and action plan for the Durham Magnesian Limestone Plateau, *BGS*

Limestone Landscapes – Geodiversity Action Plan 2010-2015, *BGS*

#### Biodiversity

A Proposed Biodiversity Work Program for the Limestone Landscapes-2010-2015 *Durham Wildlife Services*

MAGical Meadows and the Durham Magnesian Limestone *Durham Biodiversity Partnership*

#### Historic Environment

Historic Environment Audit and Action Plan *Archaeo-Environment*, June 2009

Historic environment action plan *Archaeo-Environment*, February 2010

Historic Buildings & Structures of Local Importance, Value and Character *Archaeo-Environment*, August 2010

#### LACE (Learning Access and Community Engagement )

Limestone Landscapes Training and Education project consultation Simon Lees (Countryside Training)

LL Access Consultation 3Ps, Roger Newton

LACE plan *plb ltd*, Amanda Peacock et al

#### Access

Audit of Access and Greenspaces for the Durham Magnesian Limestone Plateau (2009) *The Access Company*

The Rights of Way Improvement Plan for County Durham 2007-2011 *Durham County Council*

Access Prioritisation in the Growth Points in County Durham *Durham County Council*

Rural Roots – A Local Development Strategy for East Durham 2008 - 2013

Great North Forest Local Management Zone Strategies - Houghton Downs, Burdon Farmland & Cleadon Hills



## Appendix 1: List of Organisations Involved in Limestone Landscapes

Acumen Community Enterprise Development Trust
AONB
Arbeia Society
Association of North East Councils
Aycliffe Village Local History Society
Black & Ethnic Minority Communities (BECON) - Chair
Bowburn Local History Society
British Geological Survey
British Trust for Conservation and Volunteering (BTCV)
Campaign for the Protection of Rural England
Cassop History Society
Cassop Primary School
Church Commissioners/Chapter & Dean
Cleadon Village History Society
Cleveland Industrial Archaeology Society
Coalfield Forum
Coalfields Regeneration Trust
Country Land & Business Association
Countryside Volunteers - South Tyneside
County Durham & Darlington PCT
County Durham Association of Local Councils
County Durham Economic Partnership
County Durham Environmental Trust
County Durham Foundation
County Durham Tourism Partnership
Crowtrees Heritage Group
Darlington Borough Council
Disability North
Durham Biodiversity Partnership
Durham County Council
Durham County Local History Society
Durham Heritage Coast Initiative
Durham Primary Care Trust
Durham Rural Community Council
Durham Strategic Partnership
Durham University
Durham Wildlife Services
Durham Wildlife Trust
Easington Colliery Regeneration Partnership
East Durham Leader
East Durham Trust
English Heritage
English Heritage North East Region
Environment Agency
Esh Winning Eco Centre
Esh Winning Primary School
Forestry Commission

Freelance
Friends of Fulwell Windmill
Friends of Houghton Hillside Cemetery
Friends of Hylton Dene
Friends of Sunderland Museums
Government Office
Grasslands Trust
Grindon Heritage Society
Groundwork - South Tyneside
Groundwork North East
Hart History Group
Hartlepool Borough Council
Hartlepool Local Strategic Partnership
Hartlepool PCT
Haswell History Group
Heritage Lottery Fund
Herrington Heritage
Highways Agency
Horden Parish Council
Houghton and District Local History Group.
John Wade Group
Lafarge
LANTRA
Learning and Skills Council
Learning through landscapes
Ludworth Community Association (History Subgroup)
Monk Hesleden Parish Council
Murton Heritage Society
National Trust
Natural England
NERAF (North East Rural Affairs Forum)
Newcastle University
North East Civic Trust
North East England Vernacular Architecture Group (NEEVAG)
North East Social Enterprise Partnership
North of England Civic Trust
North-East England History Institute
Northern Archaeology Group.
Northern Way
Northumbrian Water
NovasCarman
One North East
Owen Pugh Aggregates Ltd
Peterlee Town Council
Regeneration & Economic Development
RSPB North
Ryhope Engines Museum <a href="http://www.ryhopeengines.org.uk">www.ryhopeengines.org.uk</a>
Seaham Town Council
Sedgefield Family History Society
Sedgefield PCT

Sherburn Stone
Shotton Colliery History Group
Silksworth Heritage Group.
Society of Antiquaries of Newcastle Upon Tyne
South of the Tyne Primary Care Trust
South Tyneside Council
Sport England
Sunderland Antiquarian Society
Sunderland City Council
Sunderland Civic Society
Sunderland Local Strategic Partnership
Sunderland Wildspace Volunteers
SureStart County Durham
Tarmac Ltd
Tees Valley Wildlife Trust
Teesside Archaeology Society
Teesside University
The Architectural and Archaeological Society of Durham & Northumberland
The Friends of Copt Hill.
The Fulwell Society
The National Trust
The Princes Trust
Thompsons of Prudhoe Ltd
Thorpe Thewles Heritage Group
Tunstall Hills Protection Group
Tyne & Wear Archaeology Officer
Tyne & Wear Archives and Museums
Tyne & Wear Museums
Tyne & Wear Specialist Conservation Team
Tyne and Wear Archaeology
Tyne Tees FWAG
Victoria County History of Durham
Voluntary Organisations' Network North East (VONNE)
West Rainton and Leamside Local History Group
Wheatley Hill Community Association
Wheatley Hill History Club
Whitburn Local History Group
Woodland Trust
Workers' Educational Association - North East Region



**Appendix 2 Limestone Landscapes Character Framework  
Consultation Draft August 2010**

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## Background

### Scope and purpose of the study

The Limestone Landscapes Partnership area is covered by a number of landscape character assessments (LCA) produced at different scales, at different times, by different agencies and using different methodologies. The purpose of this Landscape Framework is to provide a unified approach to describing, classifying and analysing landscape character that can be used with consistency across the project area in the work of the Partnership.

The framework has been developed by reviewing existing landscape character assessments covering the Magnesian Limestone Plateau National Character Area. It is not in itself a landscape character assessment, involving detailed field work and stakeholder consultation, but rather a desk-top review of existing LCA drawing on the material they contain.

The most detailed LCAs covering the area are those produced by local authorities. These are the product of more detailed assessment than has been carried out for this study, incorporate more local knowledge, and have been, or are, the subject of stakeholder consultations. Both the boundaries of landscape units and the descriptive and analytical material in the framework have been drawn from local LCAs where possible.

Landscape Character Assessment involves mapping, classifying and describing variations in landscape character. It also involves making judgements about the character and quality of the landscape, and analysing forces for change, to help us make informed decisions about how we should manage change in the future. In classifying the landscape two types of units can be identified:

**Landscape Character Types** are landscapes with broadly similar patterns of geology, soils, vegetation, land use, settlement and field patterns. Landscapes belonging to a particular type may be found in many different places.

**Landscape Character Areas** are unique areas - geographically discrete examples of a particular landscape type. They may share common characteristics with other landscapes belonging to the same type, but each has its own unique individual identity and sense of place.

This Landscape Framework proposes a set of landscape character types into which the types and character areas of existing local authority landscape fit with as little conflict as possible. There are some minor conflicts between the boundaries proposed in this framework and those identified in local LCAs because of the need to develop a consistent approach to classification across the study area. These are discussed in detail below.

As it is the purpose of this framework only to provide the Partnership with a unified typology for its own work, it is not anticipated that any significant issues will arise from these minor incompatibilities. It is expected that local authority LCAs will take precedence in all other applications.

## Existing Landscape Character Assessments

### National studies

#### **National Character Areas.**

The limestone landscapes project area corresponds to National Character Area (NCA) 15, the Durham Magnesian Limestone Plateau. National Character Areas were identified as part of the *Character of England* project initiated by the Countryside Agency in 1994 which aimed to provide a comprehensive understanding of the character of the English Countryside. This was undertaken

as a joint exercise with English Nature who identified Natural Areas – broad biogeographic zones - that were compatible with NCAs. In some cases a Natural Area might include several NCAs. In other cases, as with NCA15, the Natural Area and NCA are identical. NCA15 is defined and described in [Countryside Character Volume 1: North East](#).

The boundaries of NCAs were very broad brush, and were arrived at through a combination of mapping national datasets of factors like topography and land-use and consultation with a range of stakeholders. Descriptions were developed for each NCA, identifying key characteristics of the landscape, and describing its character, physical influences, historical and cultural influences, buildings and settlement, and land cover. Forces for change were identified, and broad strategic guidelines were set out. This process was based on a combination of fieldwork and consultation with stakeholders.

#### Boundaries and typology

The boundaries of NCA are approximations based on broad-scale (1:250,000) national data. A revised version of the boundary of NCA 15 was produced in drawing up the Limestone Landscapes Partnership project area based on more detailed mapping. The main areas of change proposed were as follows.

- The western boundary with NCA 14 and 16 is drawn to reflect more closely the outcrop of the limestone, or the base of the scarp or hill landforms in which the limestone outcrops. Where there is ambiguity – for example where the limestone outcrops on the upper flanks of a valley which forms part of an adjacent NCA – the limestone is generally taken as the ‘definitive’ attribute as this often has important consequences for biodiversity.
- The southern boundary with NCA 23 is drawn to reflect more closely the natural outcropping of limestone. NCA 15 merges seamlessly with NCA 23 (the Tees Lowlands). Both are underlain by limestone. The main difference between the two is that in NCA 23 the limestone is covered by thick layers of glacial drift and rarely outcrops naturally. An exception to this is in the south-west around Walworth where the limestone outcrops in an area which is otherwise unambiguously part of a different topographical unit – the Tees Vale. In the south the boundary of NCA15 was originally drawn to capture limestone quarries at Aycliffe which are located in an area which is topographically part of the Tees Plain. The other main difference in character between the two NCAs is the presence of collieries and pit-villages which don’t occur south of the Butterknowle Fault. The presence of coal workings is taken as a ‘definitive attribute’ of the plateau.

The original and revised boundaries of NCA15 are shown in Figure 1.

#### Descriptive and analytical material

The descriptive and analytical material contained in Countryside Character Volume 1: North East is of good quality if a little dated in places. Natural England are currently updating this material.

#### **The National Typology**

The National Typology was undertaken after the completion of the Character of England in an attempt to classify England’s landscapes in more detail at a national scale. The study identified generic ‘landscape types’ rather than the more place-specific ‘character areas’ already identified. The study was undertaken as a GIS-based study using national data and mapped at a scale of 1:250,000. The typology identifies a range of landscape character types which are each given a three letter code. The first letter refers to physiography, the second to land cover, and the third to cultural pattern.

The National Typology was published as a draft and has not been subsequently revised. It has not been field tested. Although it works reasonably well in some places it is not well resolved for parts of the north-east where both the boundaries of landscape units and the coded descriptions are not well resolved.

#### Boundaries and typology.

The National typology identifies a landscape description unit broadly representing NCA15. It is more accurate than the NCA15 boundary along its western edge but poorly resolved along its southern edge. The relationship between this unit and the revised NCA15 boundary are shown in Figure 2.

#### Descriptive and analytical material

The National typology does not include any descriptive or analytical material other than its three digit code which for this landscape unit is RLE.

Physiography: R – intermediate landform (low hills-plateau)

Landcover: L – shallow soils over limestone

Cultural pattern: E – wooded-estateland.

The entry under cultural pattern (E -wooded estateland) can be assumed to be an error as the landscape is sparsely wooded and not characterised by planned estates. The available alternative C – coalfields would be more accurate.

### **Countryside Quality Counts**

The Countryside Quality Counts project (CQC), sponsored by Natural England in partnership with Defra and English heritage, provides a systematic assessment of changes in the landscape of NCAs based primarily on national datasets. In its early stages the project identified sub-zones within NCAs (then known as Joint Character Areas or JCAs) based partly on a review of existing LCAs. In NCA 15 the project identified three broad sub-zones:

- Coast and coastal limestone plateau
- Clay plateau
- Limestone Escarpment

These are shown in Figure 3.

#### Boundaries and typology.

CQC uses NCA boundaries. The boundaries of sub-units are broadly indicative and were not field tested.

#### Descriptive and analytical material

Descriptive material contained in CQC relies largely on Countryside Character descriptions but contains additional draft Historic Profiles produced by English Heritage. Analysis is based largely on national datasets but at a level of detail that captures local information.

### **Regional studies**

#### **Landscape Appraisal for Onshore Wind Development**

This study was carried out for Government Office North East by the Landscape Research Group at Newcastle University to assess the sensitivity of the landscape to onshore wind development. The typology adopted was based on the National Landscape Typology amended in places by information from the Character of England and Local Authority Landscape assessments where they existed and was not field tested.

### Boundaries and typology.

The study closely follows the national typology in terms of the outer boundary of NCA15 and shares its limitations. It identifies three landscape types within NCA15 which are shown on Figure 4.

- Limestone Escarpment
- Coastal Plateau
- Hard Coastline

The limestone escarpment is only identified where information was available from the County Durham LCA (below) and is therefore inaccurate in that respect in other areas.

### Descriptive and analytical material

Descriptive material was derived from existing desk-top sources (existing LCA). Analytical material is focussed on the single purpose of the assessment and has limited use for other applications.

### **Great North Forest Management Plan**

The GNF Management Plan was written in 1994. It identified three broad landscape zones, the Western Hills, Central Lowlands, and Magnesian Limestone Plateau, the latter of which corresponds broadly with NCA15 within the Forest area. These areas were subdivided into Local Management Zones (LMZ). These are shown on Figure 5. A number of these zones were the subject of more detailed assessment and the production of LMZ Strategies in 2003. These include:

- ML12 Cleadon Hills
- ML5 Burdon Farmland
- ML6 Houghton Downs
- CL6 Wear Valley

### Boundaries and typology.

The boundary of the Magnesian Limestone Plateau is reasonably consistent with the proposed NCA15 boundary except in two areas. The limestone spur at Penshaw is identified as being part of the 'Central Lowlands'. This issue is discussed below in respect of the Sunderland LCA. The boundary between the Central or Tyne and Wear Lowlands and the plateau in the north is drawn east of Cleadon rather than west as it is in the revised NCA15 boundary. This has merit and could be accommodated by a further revision to the boundary of NCA15 as shown in Figure 6.

The Local Management Zones identified in the Plan are not landscape types, being closer in function to character areas. There isn't a strong degree of correspondence between LMZs and the proposed Limestone Landscapes landscape types other than in South Tyneside where ML1, ML2 and ML3 correspond broadly with the Coastal Limestone Plateau, Clay Plateau and Limestone Escarpment landscape types. The relationship between LMZs and the proposed typology is shown on Figure 6.

### Descriptive and analytical material

Descriptive material in the Forest Management Plan remains relevant although it is dated in some respects. Analytical and strategic material in the 2003 LMZ strategies is more current and has been the subject of stakeholder consultation.

### **Local authority studies**

The study area is covered by three landscape character assessments produced by local authorities: the Hartlepool Landscape Assessment 2000, the County Durham Landscape Character Assessment 2008, and the City of Sunderland Landscape Character Assessment 2009. Two administrative areas are not covered by LCA: Darlington and South Tyneside. These are shown on Figure 7.

### **Hartlepool Landscape Assessment**

The Hartlepool Landscape Character Assessment (HLCA) was published in 2000 and predates the publication of the current LCA guidance. It identifies a single tier of landscape types.

#### Boundaries and typology.

The HLCA does not specifically identify NCA15 and its boundary is not reflected in those of the landscape types it identifies. The boundary between NCA15 and NCA23 which crosses this area is both gradual and subtle as noted above. HLCA landscape types identified in that transitional zone include:

- Undulating Farmland
- Coastal
- Woodland
- Rural Fringe
- Urban Greenspace
- Transport Corridor

These are shown on Figure 8.

These are effectively 'local' types which occur at the level below the proposed Limestone Landscapes typology and do not pick up the boundaries of regional and sub-regional landscape types. The introduction of a new typology wouldn't therefore contradict or conflict with the existing HLCA. It is proposed to identify two broad types within this area: Limestone Coast, which corresponds with the northern part of the HLCA Coastal type, and Limestone Coastal Plain. These are shown on Figure 9.

The Limestone Coastal Plain type is distinguished from the Coastal Limestone Plateau by virtue of its topography, which is that of an undulating plain rather than a plateau, its association with a soft coast of dunes and rocky headlands rather than cliffs, and the absence of colliery workings and pit villages. It is distinguished from the very similar adjacent Lowland Plain landscapes by its subtle limestone and maritime influences.

### **County Durham Landscape Character Assessment**

The County Durham Landscape Character Assessment (CDLCA) was adopted in 2008 and was based on the 2002 LCA Guidelines. It classifies the landscape at a range of scales.

- County Character Areas (similar in scale to NCAs)
- Broad Landscape Types
- Broad Character Areas
- Local Landscape Types
- Local Landscape subtypes

#### Boundaries and typology.

The CDLCA identifies the East Durham Limestone Plateau as a County Character Area. Its boundaries are based on more detailed analysis than those of

NCA 15, and it is proposed to use those boundaries in this framework for land within County Durham.

The CDLCA identifies both broad landscape types and character areas. Broad Landscape Types include:

- Limestone Escarpment
- Clay Plateau
- Coastal Limestone Plateau
- Limestone Coast

These are shown on Figure 10. The boundaries of these units are based on detailed analysis and it is proposed generally to use those boundaries in this framework. An exception to that is land in the south-east of the county which forms part of the Limestone Coastal Plain type described above which crosses the Durham / Hartlepool boundary. For the purposes of the CDLCA this was identified as a character area belonging to the Coastal Limestone Plateau type rather than a separate landscape type. The typology proposed for land in County Durham is shown in Figure 11.

#### Descriptive and analytical material

Descriptive material in the CDLCA is detailed and up-to-date. It is accompanied by the County Durham Landscape Strategy (CDLS) which identifies the assets and attributes of County Character Areas and the trends and pressures affecting them, and sets out key issues and objectives for their conservation and enhancement. This analysis is not carried out at the level of Broad Landscape Types. Both the CDLCA and CDLS have been the subject of stakeholder consultation. The suite of documents also includes Landscape Guidelines which include development and land management guidelines for Broad Landscape Types.

#### **Sunderland City Council Draft Landscape Character Assessment**

The Sunderland City Council Landscape Character Assessment (SLCA) was published in draft form in September 2009 and was based on the 2002 LCA Guidelines. It identifies Landscape Character Areas rather than Landscape Character Types. This approach is well suited to urban fringe or semi-rural landscapes where a type-based approach can lead to over-complicated subdivisions of otherwise relatively homogenous tracts of land.

#### Boundaries and typology.

The SLCA does not specifically identify NCA15 but its boundary can be inferred from those of landscape character areas. As the SLCA uses a character area rather than character type approach, there are circumstances in which a character area might extend across a notional 'type' boundary in order to define a meaningful tract of landscape. This occurs in places along the western edge of the Escarpment character area which is defined by a ribbon of development along, or close to, the foot of the scarp. For consistency it is proposed to limit the extent of the typology shown in this framework to the revised boundary of NCA15 which effectively involves clipping some SLCA character areas to that footprint.

The SLCA identifies 11 character areas within NCA15. These are shown in Figure 12. These character areas can be readily grouped into landscape types comparable to those used in CQC and the CDLCA.

Character Area	Character Type
Coastal Farmland	Coastal Limestone Plateau

Central Plateau	Clay Plateau
Escarpment	Limestone Escarpment
South Sunderland Coast	Limestone Coast
River Wear East	Limestone River Gorge
Silksworth to Tunstall Corridor	Coastal Limestone Plateau
Downhill to Seaburn Dene	Limestone Escarpment Coastal Limestone Plateau
Barnes Burn	Clay Plateau
Hylton Dene	Limestone Escarpment
Seaburn/Roker Seafront	Limestone Coast
Railway Sidings	Limestone Coast

Of these Character Areas only Downhill to Seaburn Dene – a narrow corridor running along the edge of the LCA area - would need to be split to develop a reasonably consistent typology. These are shown in Figure 13.

There are some small areas of ambiguity where a typology driven LCA would place boundaries in different places.

- a. In the proposed typology the area around Offerton and Hastings Hill would be classed as 'Escarpment' rather than 'Plateau' due to the character of the topography and the scale and frequency of limestone outcrops (see figures 14 and 15).
- b. In the proposed typology the steep slopes north of Penshaw Monument and Offerton village would be classed as 'Escarpment' rather than 'river valley' as they are in the SLCA (Figure 14) in order to capture both the escarpment landform and the full extent of the limestone outcrop. It is possible to view the landform here as either being the steep southern slope of an asymmetrical valley, or a shallow river valley running along the edge of a steeper scarp slope before entering a gorge. As this framework is focussed on NCA15 and is therefore rather 'limestone-centric' the default has been to take the presence of limestone as definitive and pursue the landform it forms part of to a defined break in slope where possible. Figures 15 and 16 show two options for the boundary in this area.
- c. In the absence of administrative boundaries the line between the Coastal Limestone Plateau and Clay plateau in the Carley Hill area could be drawn to reflect the topography more closely. It is proposed to use the administrative boundary here for consistency with the SLCA as the difference is only a matter of 150m -200m.

## Areas not covered by existing LCA.

### South Tyneside.

In South Tyneside it is possible to identify 4 broad landscape types. These are shown on Figure 17.

Limestone Coast. This is defined on its inland edge by the coast road (A183) as it is in the SLCA.

Coastal Limestone Plateau. The Cleadon Hills fall naturally into this category due to the scale and frequency of the limestone outcrop and maritime influences. The



boundary between this type and the adjacent clay plateau gradual but is taken as corresponding roughly to the break in slope that occurs around the 35m contour.

Clay Plateau. The flat clay lands of Whitburn and Cleadon Moors fall naturally into this category. The boundaries between this type and adjacent types are gradual and progressive: the ones selected are based on modest breaks on slope but taken where possible to the nearest field boundary. In the south they are taken to be the administrative boundary with Sunderland for consistency with the SLCA although arguably they might extend some 150-200m south of that line in places. Unlike in areas to the south, the Clay Plateau extends to the coast between Whitburn and Seaburn.

Limestone Escarpment. The escarpment is not strongly defined as a linear feature north of the River Wear. Boldon Hill with its steep western slope, limestone outcrops and abandoned quarries is its northern-most point. The gentler eastern slopes merge gradually with the flatter land of the Clay Plateau. The boundary selected is relatively arbitrary but is designed to capture the main outcrops of limestone.

Note: it is proposed to alter the revised NCA15 boundary in this area to exclude the Boldon Flats area as noted above when considering the GNF LMZ boundaries. The transition between the flat clay lands of Boldon Flats which overlie coal measures strata and the equally flat clay lands of Whitburn Moor which overlie magnesian limestone is gradual and impossible to define with any precision.

### Darlington

In Darlington it is possible to identify a single landscape type although this isn't a particularly meaningful area when viewed in isolation. This is shown on Figure 18.

Limestone Escarpment. The escarpment is not strongly defined as a linear feature south of Westerton. Limestone outcrops in pockets along the plateau edge which is formed by the valley of the River Wear to the west. Although it continues to read as a spur at Coundon, and a more muted plateau edge at Eldon, south of that point through Shildon in Durham, and Redworth in Darlington, the limestone outcrops on the sides of shallow tributary valleys working back into the main Tees / Wear watershed where there is no defined scarp. The boundary between NCA15 and its neighbours is very blurred in this area.

Given the similarity of the landscape here to other dip-slope valleys it is proposed to treat it here as part of the Limestone Escarpment type rather than identify a separate type such as 'Limestone Valley'.

## Proposed Limestone Landscapes Typology

### Overview

It is proposed to identify 6 broad landscape types within NCA 15 as representing the best fit with existing national, regional and local LCA. These are shown on Figure 18

- Limestone Escarpment
- Clay Plateau
- Coastal Limestone Plateau
- Limestone Coastal Plain
- Limestone Coast



- Limestone Gorge

Figure 19 shows the relationship of these landscapes types with the limestone outcrop. While the LCA deals primarily with rural landscapes, Figure 20 shows how it is assumed these broad landscape types underlie urban landscapes as a way of explaining how undeveloped areas within the urban fabric fit within the broad typology.

Boundaries between landscape types are rarely precise and those shown in Figures 14-16 must be treated as broadly indicative only. The rationale behind the boundaries selected is given below.

#### Limestone Escarpment / Wear Lowlands & West Durham Coalfield

The boundary is taken to be either the limestone outcrop or a break in slope towards the base of a scarp or hill landform formed in part by limestone. The floor of vales enclosed in some degree by limestone spurs is treated as belonging to the landscape of the adjacent coal measures other than in the case of small narrow vales.

#### Limestone Escarpment / Clay Plateau

The boundary is taken to be the point at which the escarpment landform (made up of scarp and dip-slopes, low hills, spurs, vales and valleys) gives way to an undulating plateau, and where frequent outcrops of limestone give way to a more generalised covering of drift. This is an ambiguous boundary as there is a zone of transition between the two types which is broad in places.

#### Clay Plateau / Coastal limestone Plateau

The boundary is taken to be the point at which limestone begins to outcrop with greater frequency towards the coast, where the plateau begins to fall towards the coast incised by coastal denes, and where sea views become part of the visual environment. This is an ambiguous boundary as there is a zone of transition between the two types which is broad in places, and which may be marked by only one of these factors.

#### Coastal Limestone Plateau / Limestone Coast

The Limestone Coast is tightly defined. The landward boundary is generally taken to be a coastal road, railway line or settlement edge.

#### Coastal Limestone Plateau / Limestone Coastal Plain

The boundary is taken to be the point at which the plateau topography (associated with a 'hard' coast of cliffs and incised coastal denes) gives way to that of an undulating plain (associated with a 'soft' coast of dunes and rocky headlands). This is an ambiguous boundary as there is a broad zone of transition between the two types.

#### Limestone River Gorge / other broad types.

The boundary is taken in principle to be the point at which the adjacent landforms are incised by the river valley / gorge. In practice as the typology excludes urban areas, the boundaries are all settlement edges rather than topographic features.

#### Boundaries with the Tees Lowlands

The boundary is taken to be the point at which frequent outcrops of limestone give way to a more generalised covering of drift, where escarpment landforms give way to the flat or undulating topography of the plain, or where colliery workings and pit villages become characteristic features of the landscape. This is an ambiguous boundary as there is a broad zone of transition between the plateau and the plain.

## Broad Landscape Types

### Limestone Escarpment

#### Key characteristics

- A low escarpment, deeply dissected in places to form short valleys between well-defined spurs or low rounded hills.
- Gently rounded topography of soft magnesian limestones covered in places by glacial drift.
- Occasional steep-sided incised valleys and glacial melt-water channels.
- Thin calcareous soils over limestones with heavier clays on boulder clay and brown earths on glacial sands and gravels.
- Open, predominantly arable farmland, with pasture on steeper slopes and pony paddocks close to settlement edges
- Remnants of limestone grassland on the thin soils of scarp slopes, spurs, ridge tops and incised valleys.
- Varied limestone plant communities in abandoned limestone quarries and road cuttings
- Semi-regular patterns of medium and large-scale fields bounded by low, clipped hawthorn hedges which are often neglected or gappy.
- Few trees – thinly scattered hedgerow ash and sycamore
- Sparsely wooded – ancient ash woodlands and areas of hawthorn scrub on steep spurs, vale-sides and denes.
- Occasional small 'green' villages on ridge tops and valley floors. Scattered mining towns and villages and larger urban areas in the north
- Large limestone quarries, some in use as landfill sites, in prominent locations on ridges and spurs.
- Tracts of reclaimed land restored to agriculture, forestry or recreational uses.
- A visually open landscape with panoramic views across the surrounding lowlands and urban areas.
- Crossed by major roads, often in prominent cuttings with exposed limestone faces, and by a network of quiet country lanes.
- Rural in character with scattered isolated farms in places but with a semi-rural or urban fringe quality in settled areas.
- Wind turbines and overhead services are prominent on the skyline in places.

#### Description

A low escarpment, deeply dissected in places to form a series of short valleys between well defined spurs, but forming a simpler low ridge or low hills elsewhere. Soft and easily weathered creamy yellow magnesian limestones (dolomites) and sands form gently rounded, convex slopes. They are overlain in places by boulder clays, or locally by glacial sands and gravels that give rise to a more undulating terrain. There are occasional steep-sided glacial melt water channels that cut down into valley floors or breach the escarpment. Valleys are often dry in their upper reaches and there are occasional springs at the base of the scarp. Watercourses are small and inconspicuous. Soils are diverse, with thin calcareous soils over limestone outcrops, heavier neutral clays on glacial boulder clay and free draining brown earths on sands and gravels.

Agricultural land-use is mixed but predominantly arable, with pasture generally restricted to the steeper slopes or urban fringe pony paddocks. Field boundaries are hedgerows, or, very occasionally, low limestone walls. Hedges are usually clipped low and dominated by hawthorn and are frequently neglected and gappy. Field patterns are semi-regular in pattern and most date from the enclosure of the common town fields of the older escarpment villages in the 1600s. There are remnants of old, flower rich limestone grasslands – with Blue Moor-grass, Sheep's Fescue and herbs such as Wild Thyme and Common rockrose - on the thin soils of scarp slopes, spurs, incised valleys and ridge tops.

Tree and woodland cover is low. The landscape is generally very open with thinly scattered hedgerow ash and sycamore. Ancient ash woods and areas of hawthorn or gorse scrub are found on steeper spurs, valley sides and incised denes. There are patches of scrub in and around abandoned limestone quarries and colliery land, and a few areas of mature plantations associated with former parklands.

Old agricultural villages are found on ridge tops and valley floors. Buildings are of local limestone or sandstone from the nearby coal measures with roofs of clay pan tile or Welsh slate and are typically set around a central village green. Mining villages and small towns are scattered irregularly across the escarpment, some having absorbed older villages. They are made up of buildings from a number of periods including Victorian terraced housing of red brick and slate, estates of the inter-war and post-war public housing and more recent private development. Settlement edges are abrupt or fringed by leisure facilities, industrial estates, allotment gardens and pony paddocks or derelict land.

The limestone of the escarpment has been worked for building and agricultural lime since the Middle Ages, and more recently for construction aggregates and refractory products. Large active and abandoned quarries are prominent features in the landscape. Many older quarries have naturally re-vegetated and contain very diverse limestone plant communities. Some quarries are in use as landfill sites with visible tipping areas and litter-trap fencing. Coal mining has also had a substantial influence on the landscape, although much of its legacy has been removed by land reclamation in recent years. Areas of land restored to open agricultural land or coniferous forestry are found around the colliery villages, together with areas restored to recreational uses such as country parks. The escarpment is crossed by a number of major roads including the A1(M) and several A and trunk roads. In places these cross the scarp in prominent cuttings with exposed rock faces. Elsewhere the escarpment settlements are connected by a network of relatively quiet country lanes. There is a relatively dense network of footpaths augmented by a number of multi-user routes on old railway lines and wagon-ways. Wind turbines are locally prominent features as are major and minor overhead transmission lines.

The landscape is visually open and broad in scale with panoramic views out across the Wear Lowlands to the east and the Tees Lowlands to the South. Within the escarpment vales and valleys it is often more enclosed and intimate in scale. The escarpment forms an important skyline in views from the Wear Lowlands and contains some notable landmarks including Penshaw Monument and Copt Hill burial mound. The escarpment forms the backdrop in many views of Durham Cathedral and Castle World Heritage Site and other important buildings, and can also be an important vantage point from which to view them. In places the landscape has a very rural character, but generally its frequent mining villages, quarries and waste disposal sites, busy roads and overhead services, pony paddocks and derelict land give it a semi-rural or urban fringe quality.

### **Trends, pressures and issues**

- The dense settlement pattern left by coal and associated industries together with the presence of busy roads, railways, waste disposal sites and industrial estates, power lines and communications masts, gives a semi-rural or urban fringe quality to parts of the landscape.
- The built environment of some former mining settlements is of a poor quality. Centres are often run down. Settlement edges are abrupt or poorly defined and fringed with allotments, pony paddocks and industrial land.
- The presence of large urban populations brings a pressure for recreational development like golf courses, equestrian centres and pony paddocks in the countryside near towns and villages, which weaken its rural character. The conversion of many farms and farm buildings to residential use adds to this 'suburbanising' process.
- There is continued pressure for urban and industrial development and particularly on existing settlement edges.
- Farmland close to urban areas suffers from problems like trespass, vandalism, fly tipping and wind-born litter. This tends to discourage investment and positive management, bringing an air of neglect to the urban fringe.
- The tranquillity and rural character of the countryside between towns and villages is eroded in places by the presence of major highways and other busy roads.
- The dereliction left by the coal industry has been largely reclaimed although some remains. While some land has been restored to positive after-uses, other sites have been restored to relatively poor quality agricultural land which is lacking in mature landscape features. Some reclaimed sites are planted with softwoods which can look incongruous in this landscape.
- The natural topography of the escarpment has been heavily affected in places by quarrying. Active quarries and waste disposal sites are often visually intrusive. Some working quarries are likely to extend significantly in the future. Restoration with landfill is unlikely to be an option for many quarries which will therefore be restored as open voids which brings opportunities for biodiversity.
- Ancient semi-natural woodlands vary in condition. Dutch Elm disease has altered the structure of many woods, with sycamore often replacing the native wych elm in the canopy. Some have been modified by the planting of exotics and a number were felled and replanted with conifers in the C20th.
- An increase in the extent and intensity of arable cropping has led to a loss of old pastures and meadows, along with hedgerows, hedgerow trees, field ponds, rigg and furrow and other archaeological features. Parts of the landscape have become very open with large fields and few mature features.
- Flower-rich limestone or neutral pastures and meadows have declined with agricultural improvement, or the encroachment of scrub. Old grasslands are now rare and survive only as isolated fragments. Some of the species found there are now genetically isolated.
- The hedgerow network is heavily fragmented in places and continues to decline through removal or neglect. In arable areas hedges tend to be cut frequently and low, reducing their landscape and wildlife value and making them more vulnerable to weed encroachment and spray drift.
- The escarpment has a relatively good wind resource although its exploitation will be constrained by the relatively dense settlement pattern. There are several existing or permitted wind farms on the escarpment or adjacent parts of the plateau, and ongoing pressure for new development.

- There are a small number of relic ornamental parklands on the escarpment. Surviving features like parkland trees are in progressive decline and are likely to disappear without positive management and some degree of restoration.
- Although generally well-served by footpaths, and locally by cycle-ways on former railway lines and wagon-ways, existing routes tend to have an east-west grain. There is little opportunity for north-south access along the escarpment.

### Objectives

- To improve the quality of the urban and urban fringe environment generally.
- To maintain and strengthen the rural character of the landscape between towns and villages.
- To conserve the character of historic villages, older village cores and town centres.
- To conserve, enhance and restore characteristic features of the landscape - species rich limestone grasslands, field and vale-floor ponds, dene and valley-side ash woods, old hedgerows, limestone walls and abandoned limestone quarries.
- To conserve relic landscapes and landscape features – particularly those of the coal, and railway industries, historic parklands, and relics of the medieval landscape such as rig and furrow and deserted villages.
- To enhance the management of arable land by creating buffers to hedgerows, trees, wetlands and watercourses.
- To improve the management of hedgerows by reducing the frequency of trimming.
- To encourage enhanced management of land used for equestrian activities.
- To create new native ash and oak woodlands and particularly in the form of dene and valley-side ash woods and community woodlands close to settlements
- To improve the management of existing woods to maximise landscape, wildlife and amenity benefits.
- To maintain the stock of hedgerow and parkland trees by conserving veteran trees and planting or tagging new hedgerow trees.
- To restore derelict land and improve the landscape of reclaimed land by planting native woodlands and hedgerows, restructuring plantations, and creating species rich grasslands.
- To restore mineral workings in a way that reduces their impact on the landscape and enhances biodiversity - for example by creating new ash woods, limestone grasslands and wetlands on low fertility substrates.
- To maintain and increase access to the countryside around towns and villages, and particularly circular neighbourhood walks and long distance paths, including development of a north-south 'limestone way' along the escarpment.
- To create accessible natural green space close to towns and villages.
- To reduce traffic on country lanes and create new safe routes or 'greenways' for pedestrians, cyclists and horse riders between towns and villages.

- To encourage the conservation and appropriate management of roadside verges
- To protect the topography of the escarpment from the impacts of quarrying and reduce the visual impacts of working quarries – for example through off-site planting.
- To secure the management of abandoned mineral workings and other sites of nature conservation importance.
- To encourage improvements to the environment of industrial sites and positive management of vacant industrial land.

## Clay Plateau

### Key characteristics

- Low plateau of flat, gently rolling or undulating terrain.
- Soft magnesian limestones are covered by a thick mantle of boulder clay.
- Heavy, seasonally waterlogged clay soils.
- Predominantly arable farmland - mostly cereals and oilseed rape –mixed in places with improved pasture and pony paddocks
- Regular or semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- Few trees – thinly scattered hedgerow ash, oak and sycamore.
- Sparsely wooded – occasional small broadleaved woods and larger conifer plantations.
- Scattered mining villages and larger urban areas connected by a well developed network of busy roads.
- Wind turbines, telecommunications masts and pylons frequently feature on the skyline.
- Areas of derelict colliery land, reclaimed land and old clay pits.
- Abandoned railway lines, many in use as cycleways.
- A visually open landscape, broad in scale, with a semi-rural or urban fringe quality in places.

### Description

A low plateau of flat, gently undulating or gently rolling terrain. Soft magnesian limestones (dolomites) are overlain by glacial drift - mostly boulder clays with isolated pockets of sands and gravels – often to a substantial depth. Soils are heavy, seasonally waterlogged brown stony clay soils with pockets of lighter calcareous soils where there is no drift. Pockets of peaty clay soils occur in poorly drained areas.

Agricultural land use is mixed with a mosaic of arable cropping, largely cereals and oilseed rape, and improved pasture. Field boundaries are hawthorn-dominated hedgerows, usually low and trimmed in arable areas but occasionally tall and overgrown around pastures. Field patterns are variable but are generally regular or semi-regular. Some date from the enclosure of town fields from the mid 1500s to late 1600s, or earlier enclosures from the manorial wastes associated with individual farms or monastic granges. Many date from the enclosure of open wastes from the mid 1700s – usually indicated by the place name 'moor' - and have the characteristic regular grid patterns of land enclosed by surveyors. Field

patterns have been heavily disrupted in places by the amalgamation of smaller units into large arable fields.

Tree and woodland cover is low. The landscape is very open with thinly scattered hedgerow oak, ash and sycamore. There are few woodlands other than occasional small broadleaved woods and a number of larger conifer plantations. Areas of scrub and young woodland are found on pockets of derelict colliery land, old railway lines and abandoned grassland.

Historically a sparsely settled landscape of scattered farms and extensive wastes on the heavy and poorly drained soils of the central plateau. Old villages are generally absent. Older farm buildings are of local limestone, or more durable Carboniferous sandstones imported from the west, with roofs of red clay pan tile. Mining villages and larger towns are scattered across the plateau, some having absorbed older villages. The western parts of the City of Sunderland spread across the plateau south of the River Wear. Settlements are made up of buildings from a number of periods including Victorian terraced housing of red or grey brick and slate, estates of the inter-war and post-war public housing and more recent private development. Settlement edges are abrupt or fringed by allotment gardens and pony paddocks.

Coal mining has had a substantial influence on the landscape. Much of its legacy has been removed by land reclamation in recent years, but some areas of dereliction remain. Areas of land restored to agriculture or forestry are found around the colliery villages. Many settlements had small brickworks associated with them and old flooded clay pits are common. The plateau is crossed by a number of major roads including the A19. Elsewhere settlements are connected by a network of relatively busy minor roads. The footpath network is variable in character being relatively sparse in places but is augmented by a number of multi-user paths on old railway lines and wagon-ways which include long-distance routes.

The landscape is visually very open and broad in scale, and has a semi-rural or urban fringe quality in most places coming from its dense settlement pattern, busy roads, overhead services and areas of derelict land.

#### **Trends, pressures and issues**

- The dense settlement pattern left by coal and associated industries together with the presence of busy roads, industrial estates, power lines and communications masts, gives a semi-rural or urban fringe quality to much of the landscape.
- The built environment of some former mining settlements is of a poor quality. Centres are often run down. Settlement edges are abrupt or poorly defined and fringed with allotments, pony paddocks and industrial land.
- The presence of large urban populations brings a pressure for recreational development like golf courses, equestrian centres and pony paddocks in the countryside near towns and villages, which weaken its rural character. The conversion of many farms and farm buildings to residential use adds to this 'suburbanising' process.
- There is continued pressure for urban and industrial development and particularly close to existing settlement edges.
- Farmland close to urban areas suffers from problems like trespass, vandalism, fly tipping and wind-born litter. This tends to discourage investment and positive management, bringing an air of neglect to the urban fringe.



- The tranquillity and rural character of the countryside between towns and villages is eroded in many places by the presence of major highways and other busy roads.
- The dereliction left by the coal industry has been largely reclaimed although some remains. While some land has been restored to positive after-uses, other sites have been restored to relatively poor quality agricultural land which is lacking in mature landscape features. Some reclaimed sites are planted with softwoods which can look incongruous in this landscape.
- An increase in the extent and intensity of arable cropping has led to a loss of old pastures and meadows, along with hedgerows, hedgerow trees, field ponds, rig and furrow and other archaeological features. Parts of the landscape have become very open with large fields and few mature features. Surviving features are vulnerable to further intensification.
- Flower-rich neutral and acidic pastures and meadows and wet grasslands have declined with agricultural improvement or drainage. Old grasslands are now rare and survive only as isolated fragments. Some of the species found there are now genetically isolated.
- Tree cover is very low and ancient native woodland entirely absent.
- The hedgerow network is heavily fragmented in places and continues to decline through removal or neglect. In arable areas hedges tend to be cut frequently and low, reducing their landscape and wildlife value and making them more vulnerable to weed encroachment and spray drift.
- The footpath network tends to follow historical routes which offer limited opportunities for attractive circular walks from settlements. Traffic levels on minor roads discourages other road users and particularly pedestrians.
- The plateau has a relatively good wind resource although its exploitation will be constrained by the relatively dense settlement pattern. There are several existing or permitted wind farms on the plateau or adjacent areas, and there is ongoing pressure for new development.

### Objectives

- To improve the quality of the urban and urban fringe environment generally.
- To maintain and strengthen the rural character of the landscape between towns and villages.
- To conserve, enhance and restore characteristic features of the landscape - species rich neutral and wet grasslands, field ponds, old hedgerows.
- To conserve relic landscapes and landscape features – particularly those of the coal and railway industries and relics of the medieval landscape such as rig and furrow and deserted villages.
- To enhance the management of arable land by creating buffers to hedgerows, trees, wetlands and watercourses.
- To improve the management of hedgerows by reducing the frequency of trimming.
- To encourage enhanced management of land used for equestrian activities.
- To create new native oak woodlands, and alder woodlands in areas of poor drainage, and new community woodlands close to settlements
- To improve the management of existing plantations to maximise landscape, wildlife and amenity benefits.



- To maintain the limited stock of hedgerow trees by conserving veteran trees and planting or tagging new hedgerow trees.
- To restore derelict land in ways which conserves its biodiversity and improve the landscape of reclaimed land by planting native woodlands and hedgerows, restructuring plantations, and creating species rich grasslands.
- To maintain and increase access to the countryside around towns and villages, and particularly circular neighbourhood walks and links to long-distance paths.
- To create accessible natural green space close to towns and villages.
- To reduce traffic on country lanes and create new safe routes or 'greenways' for pedestrians, cyclists and horse riders between towns and villages.
- To secure the management of abandoned mineral workings and other sites of nature conservation importance.
- To encourage improvements to the environment of industrial sites and positive management of vacant industrial land.

## Coastal Limestone Plateau

### Key characteristics

- Low coastal plateau of rolling or undulating terrain, incised by narrow steep-sided denes, falling gradually to the coast
- Gently rounded topography of soft magnesian and shell limestones covered in places by glacial drift of boulder clay, sands and gravels.
- Occasional low landmark hills.
- Heavy, seasonally waterlogged clay soils and lighter brown earths.
- Predominantly arable farmland of cereals and oilseed rape.
- Semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- An open landscape exposed to the sea with few trees or woodlands.
- Ancient ash woods in sheltered denes.
- Large mining settlements connected by a well-developed network of busy roads.
- Large active, abandoned or dormant limestone quarries are notable features locally.
- Scattered older agricultural 'green' villages connected by narrow winding lanes.
- Occasional areas of parkland and estate farmland rich in hedgerow trees.
- A visually open landscape, broad in scale but with spaces defined by the rolling terrain.
- The sea is often visible forming the eastern horizon.
- A semi-rural or urban fringe quality in places.

### Description

A low coastal plateau of gently rolling or undulating terrain, incised by narrow steep sided denes. Soft magnesian limestones (dolomites) and shell or reef limestones are overlain generally by glacial drift of boulder clays and sands and

gravels. Soils are heavy, seasonally waterlogged brown stony clay soils with pockets of lighter calcareous soils where there is no drift, and fertile brown earths over deposits of sands and gravels.

Agricultural land use is largely arable and dominated by cereals and oilseed rape. Field boundaries are low, clipped, hawthorn hedges. Field patterns are semi-regular, and most date from the enclosure of the town fields of older villages in the 1600s. Field patterns have been heavily disrupted in places by the amalgamation of smaller units into very large arable fields.

Tree cover is generally very low with only isolated hedgerow ash or sycamore. There are very localised areas of parkland and estate farmland that is rich in hedgerow and field trees. The landscape is generally very open and exposed to the strong, salt laden winds and sea fets of the North Sea. Woodlands are almost entirely restricted to the sheltered denes that contain ancient woodlands of ash, oak, wych elm and yew.

Historically a settled landscape with a nucleated pattern of small agricultural villages of early medieval origins. A number of these survive and most have buildings of local limestone, or more durable carboniferous sandstone imported from the west, and roofs of red clay pan tile or Welsh slate. Buildings are typically set around a central green. Old villages and scattered farms are connected by narrow winding roads and lanes.

Larger settlements including the eastern parts of the City of Sunderland and the mining settlements of Ryhope, Seaham and Peterlee new town occupy substantial tracts of the coastal plateau. They are made up of buildings from a number of periods including Victorian terraced housing of red or grey brick and slate, estates of inter-war and post-war public housing and more recent private estate development. Settlement edges are often abrupt or fringed by allotment gardens and pony paddocks or industrial estates.

The reef limestones of the coastal plateau have been worked for building and agricultural lime since the Middle Ages, and more recently for construction aggregates. Large quarries, abandoned, dormant or active, are notable features in the landscape and contain diverse limestone flora. Coal mining has had a substantial influence on the landscape, its main legacy being in the settlement pattern. Extensive areas of colliery land have been reclaimed in recent years to housing and industry. The coastal plateau is an important communications corridor and is crossed by the busy A19 trunk road and the coastal railway line. Local roads between settlements are often heavily trafficked. The footpath network is generally well developed and is augmented in the south by a multi-user route following a former railway line with longer-distance links across the Clay Plateau. The network is generally well-linked in the east to the long-distance coastal path.

The landscape is visually open and broad in scale, with spaces defined by the rolling topography. The sea is often visible, forming a strong distant horizon to the east. A densely settled landscape with a semi-rural or urban fringe quality in many places, but with a strongly rural character in some areas.

### **Trends, pressures and issues**

- The dense settlement pattern left by coal and associated industries together with the presence of busy roads, railways, industrial estates, power lines and communications masts, gives a semi-rural or urban fringe quality to much of the landscape.
- The built environment of some former mining settlements is of a poor quality. Centres are often run down. Settlement edges are abrupt or poorly defined and fringed with allotments, pony paddocks and industrial land.

- The presence of large urban populations brings a pressure for recreational development like golf courses, equestrian centres and pony paddocks in the countryside near towns and villages, which weaken its rural character. The conversion of many farms and farm buildings to residential use adds to this 'suburbanising' process.
- There is continued pressure for urban and industrial development and particularly on existing settlement edges.
- Farmland close to urban areas suffers from problems like trespass, vandalism, fly tipping and wind-born litter. This tends to discourage investment and positive management, bringing an air of neglect to the urban fringe.
- The tranquillity and rural character of the countryside between towns and villages is eroded in places by the presence of major highways and other busy roads.
- Active limestone quarries can be visually intrusive. Site management and restoration offers opportunities for improving biodiversity.
- Ancient semi-natural woodlands vary in condition. Dutch Elm disease has altered the structure of many woods, with sycamore often replacing the native wych elm in the canopy. Some have been modified by the planting of exotics and a number were felled and replanted with conifers in the C20th.
- An increase in the extent and intensity of arable cropping has led to a loss of old pastures and meadows, along with hedgerows, hedgerow trees, field ponds, rigg and furrow and other archaeological features. Much of the landscape has become very open with large fields and few mature features.
- Flower-rich limestone or neutral pastures and meadows have declined with agricultural improvement, or the encroachment of scrub. Old grasslands are now rare and survive only as isolated fragments. Some of the species found there are now genetically isolated.
- The hedgerow network is heavily fragmented in places and continues to decline through removal or neglect. In arable areas hedges tend to be cut frequently and low, reducing their landscape and wildlife value and making them more vulnerable to weed encroachment and spray drift.
- The coastal plateau has a relatively good wind resource although its exploitation is constrained by the relatively dense settlement pattern. There are currently no existing or permitted wind farms although there is some development pressure.
- There are a small number of relic ornamental parklands on the coastal plateau. Surviving features like parkland trees are in progressive decline and are likely to disappear without positive management and some degree of restoration.

### Objectives

- To improve the quality of the urban and urban fringe environment generally.
- To maintain and strengthen the rural character of the landscape between towns and villages.
- To conserve the character of historic villages, older village cores and town centres.
- To conserve, enhance and restore characteristic features of the landscape - species rich limestone grasslands, dene woodlands, old hedgerows, field ponds and abandoned limestone quarries.

- To conserve relic landscapes and landscape features – particularly those of the coal and railway industries, historic parklands, and relics of the medieval landscape such as rig and furrow and deserted villages.
- To enhance the management of arable land by creating buffers to hedgerows, hedgerow trees, wetlands and watercourses.
- To improve the management of hedgerows by reducing the frequency of trimming.
- To encourage enhanced management of land used for equestrian activities.
- To create new native ash and oak woodlands and particularly where they would restore or consolidate existing dene woodlands, and to create new community woodlands close to settlements
- To improve the management of existing woods to maximise landscape, wildlife and amenity benefits.
- To maintain the stock of hedgerow and parkland trees by conserving veteran trees and planting or tagging new hedgerow trees.
- To restore active or dormant limestone quarries in a way that reduces their impact on the landscape and enhances biodiversity - for example by creating new ash woods, limestone grasslands and wetlands on low fertility substrates.
- To maintain and increase access to the countryside around towns and villages, and particularly circular neighbourhood walks.
- To create accessible natural green space close to towns and villages.
- To reduce traffic on country lanes and create new safe routes or 'greenways' for pedestrians, cyclists and horse riders between towns and villages.
- To encourage the conservation and appropriate management of roadside verges
- To secure the management of abandoned mineral workings and other sites of nature conservation importance.
- To encourage improvements to the environment of industrial sites and positive management of vacant industrial land.

## Limestone Coast

### Key characteristics

- Varied coast of shallow bays and headlands.
- Cliffs of pale magnesian limestone with crests of boulder clay, occasional caves and stacks.
- Shallow gills cut down into the cliff-top boulder clay. Larger denes breach the limestone cliffs.
- Sand or shingle beaches and limestone rock platforms.
- Localised raised beaches of colliery wastes.
- Developed in places with sea-front promenades and recreational development, working ports and harbours.
- Gently rolling cliff-top farmland of open arable fields or rough coastal grassland.
- Varied grassland flora – red fescue, sea plantain, and bloody cranesbill.

- Patches of wind-shaped blackthorn scrub with occasional hazel and juniper on clay slopes and cliff top denes.
- Ancient woodlands of ash, oak, wych elm and yew in deeper sheltered dene-mouths.
- Localised sand dunes with marram grass, sea couch and red fescue.
- A narrow coastal strip often defined inland by settlement edges, coastal roads or railway lines.
- Localised areas of recently reclaimed colliery land.
- A visually open landscape with extensive views out across the North Sea.
- A natural coastline heavily influenced by urban development and damaged in places by colliery workings.

### **Description**

A varied coastline of shallow bays and headlands. Much of the coastline is made up of cliffs, 20 to 30 metres in height, of pale, creamy yellow Permian limestones crested by steep slopes of boulder clay, with occasional caves and stacks. The limestones exposed in the cliffs vary in character and include soft dolomites, thinly bedded or “brecciated” by the collapse of underlying strata, oolitic and concretionary limestones, and fossil-rich reef limestones.

The foreshore is made up of beaches of sand and shingle or cobbles with occasional wave-cut rock platforms. Beaches are despoiled in places by the past tipping of colliery wastes, now being gradually eroded by the sea. Shallow denes cut down into the cliff-top boulder clay and the mouths of larger inland denes breach the limestone cliffs. In the south, low sand dunes bound by marram grass and sea couch mark the transition with the lower lying coastal plain.

The coast is developed in places with extensive sea-front promenades and recreational facilities, amenity grasslands and caravan sites. There are working ports and harbours at Sunderland, Seaham and Hartlepool with associated areas of industrial land and infrastructure such as railway sidings.

Above the cliffs lie relatively flat or gently rolling open arable fields and rough coastal grasslands. These grasslands, and those on the clay slopes, have a varied flora of red fescue, sea plantain and bloody cranesbill. Patches of wind-shaped blackthorn scrub with occasional stunted hazel and juniper are found on clay slopes and cliff top denes. Ancient woodlands of ash, oak, wych elm and yew lie in the deeper and more sheltered dene-mouths.

The coastal strip is narrow and often defined inland by settlement edges, coastal roads or railway lines. There are areas of restored colliery land within the coastal strip south of Seaham and military facilities at Whitburn.

The landscape is exposed and visually open with extensive panoramic views out across the North Sea, and dramatic scenic views along the coastline. In places it has natural and elemental qualities, coming from its geology, its semi-natural vegetation and the influences of the sea. In other places it has a strongly urban character, or an industrialised urban fringe character close to working ports or in areas of past mining activity.

### **Trends, pressures and issues**

- The dereliction left by the mining industry has been largely reclaimed although some beaches remain in poor condition. Parts of the coast have an industrialised or urban fringe quality.

- Coastal erosion is proceeding rapidly in places. Some fragile cliff-top habitats are being 'squeezed- out' as cliff slopes erode back into improved farmland or amenity grassland.
- Erosion presents an imminent threat to areas of former landfill or colliery wastes.
- Rising sea levels are anticipated in the coming decades which will increase the threats posed by erosion.
- Coastal landscapes have conflicting management requirements. Public access and recreational use can conflict with the need to protect fragile habitats or to manage coastal grasslands.
- Many coastal grasslands are in poor condition and their biodiversity is low or declining as they are difficult to manage either as pasture or meadow due to pressures of access.
- There is continued pressure for urban and industrial development and particularly on existing settlement edges.
- Public access to the foreshore is poor in places, particularly in stretches alongside the coastal railway line.
- Parts of the coastal strip are in intensive agricultural use reducing coastal habitats and the land available for footpaths to narrow corridors.
- The coastal strip is very narrow and the appreciation of its natural qualities is often impaired by nearby development and busy roads.

### **Objectives**

- To improve the quality of the coastal environment generally.
- To restore natural conditions to cliffs and foreshores, and particularly where they have been despoiled by industrial development or the tipping of colliery wastes.
- To conserve, enhance and restore features and habitats characteristic of the landscape, and particularly species rich limestone and maritime grasslands, dune woodlands and scrub.
- To convert arable land to maritime grassland or create substantial buffers to cliff-top grasslands
- To create new native ash woodlands and scrub and particularly where they would restore or consolidate existing dune and gill habitats or screen intrusive development or busy roads.
- To improve the management of existing dune and gill woods to maximise landscape, wildlife and amenity benefits.
- To improve the management of coastal grasslands and particularly by introducing grazing where this is practical.
- To improve and manage access to the coastal strip and foreshore.

### **Limestone Coastal Plain**

#### **Key characteristics**

- Low coastal plain of undulating or rolling terrain incised locally by narrow dunes
- Magnesian limestones are largely overlain by glacial drift of boulder clay, sands and gravels.

- Heavy, seasonally waterlogged clay soils and lighter brown earths.
- Predominantly arable farmland of cereals and oilseed rape.
- Semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges.
- An open landscape exposed to the sea with few trees.
- Ancient oak and ash dene woodlands and scattered plantations.
- Large coastal settlements connected by a well-developed network of busy roads.
- Scattered older agricultural 'green' villages connected by narrow winding lanes.
- A visually open landscape, broad in scale but with spaces defined by the rolling terrain.
- Occasional active or abandoned limestone quarries.
- Crossed by major roads and by a network of quiet country lanes.
- Wind turbines and overhead services are prominent on the skyline in places.
- The sea is often visible forming the eastern horizon.
- A predominantly rural landscape with a semi-rural or urban fringe quality in places.

### Description

A low coastal plain of undulating or rolling terrain incised locally by narrow denes. Soft magnesian limestones are overlain generally by glacial drift made up of boulder clays and sands and gravels. Soils are heavy, seasonally waterlogged brown stony clay soils with pockets of lighter calcareous soils where there is no drift, and more fertile brown earths over deposits of sands and gravels.

Agricultural land use is largely arable and dominated by cereals and oilseed rape. Field boundaries are low, clipped, hawthorn hedges. Field patterns are semi-regular, and most date from the enclosure of the town fields of older villages in the 1600s. Field patterns have been heavily disrupted in places by the amalgamation of smaller units into very large arable fields.

Tree cover is generally very low with only isolated hedgerow ash or sycamore. The landscape is generally very open and exposed to the strong, salt laden winds and sea frets of the North Sea. Woodlands are limited to scattered plantations and ancient ash and oak woods in narrow denes.

Historically a settled landscape with a nucleated pattern of small agricultural villages of early medieval origins. A number of these survive and have buildings of local limestone, or more commonly durable sandstone imported from the west, and roofs of red clay pan tile or Welsh slate. Buildings are typically set around a central green. Old villages and scattered farms are connected by narrow winding roads and lanes.

The coastal town of Hartlepool occupies much of the Coastal Plain in the east. It is made up of buildings from a number of periods including Victorian terraced housing of red brick and slate, estates of the inter-war and post-war public housing and more recent private development. Settlement edges are open and abrupt in places, screened by perimeter tree belts in others.

There is a single active limestone quarry south of Hart and a number of much smaller old quarries that have naturally re-vegetated. The coastal plain is part of a wider communications corridor and is crossed by the busy A19 trunk road, the



A179 and the A1086. Villages and farms are connected by a network of quieter country lanes.

Turbines of the High Volts windfarm are prominent features in the area, which is also crossed by a number of major overhead transmission lines.

The landscape is visually open and broad in scale, with spaces defined by the rolling or undulating topography. The sea is often visible, forming a strong distant horizon to the east. A predominantly rural landscape, although settled in the east, and with a semi-rural or urban fringe quality in places.

### **Trends, pressures and issues**

- Parts of the landscape in the east have an urban fringe quality. Elsewhere the presence of busy roads and power lines gives a semi-rural quality to some areas.
- The presence of large urban populations brings a pressure for recreational development like golf courses, equestrian centres and pony paddocks in the countryside near towns and villages, which weaken its rural character. The conversion of many farms and farm buildings to residential use adds to this 'suburbanising' process.
- There is continued pressure for urban and industrial development and particularly on existing settlement edges.
- Farmland close to urban areas suffers from problems like trespass, vandalism, fly tipping and wind-born litter. This tends to discourage investment and positive management, bringing an air of neglect to the urban fringe.
- The tranquillity and rural character of the countryside between towns and villages is eroded in places by the presence of major highways and other busy roads.
- Ancient semi-natural woodlands vary in condition. Dutch Elm disease has altered the structure of some remaining areas, with sycamore replacing the native wych elm in the canopy. Other areas have been modified by the planting of exotics and or felled and replanted with conifers.
- An increase in the extent and intensity of arable cropping has led to a loss of old pastures and meadows, along with hedgerows, hedgerow trees, field ponds, rigg and furrow and other archaeological features. Much of the landscape has become very open with large fields and few mature features.
- Flower-rich limestone or neutral pastures and meadows have declined with agricultural improvement. Old grasslands are now rare and survive only as isolated fragments. Some of the species found there are now genetically isolated.
- The hedgerow network is heavily fragmented in places and continues to decline through removal or neglect. In arable areas hedges tend to be cut frequently and low, reducing their landscape and wildlife value and making them more vulnerable to weed encroachment and spray drift.
- The coastal plain has a relatively good wind resource and there is likely to be ongoing pressure for further development.

### **Objectives**

- To improve the quality of the urban and urban fringe environment generally.
- To maintain and strengthen the rural character of the landscape between towns and villages.



- To conserve the character of historic villages and town centres.
- To conserve, enhance and restore characteristic features of the landscape - species rich limestone and neutral grasslands, dene woodlands, old hedgerows, field ponds and abandoned limestone quarries.
- To enhance the management of arable land by creating buffers to hedgerows, hedgerow trees, wetlands and watercourses.
- To improve the management of hedgerows by reducing the frequency of trimming.
- To encourage enhanced management of land used for equestrian activities.
- To create new native ash and oak woodlands and particularly where they would restore or consolidate existing dene woodlands, and to create new community woodlands close to settlements
- To improve the management of existing woods to maximise landscape, wildlife and amenity benefits.
- To maintain the stock of hedgerow trees by conserving veteran trees and planting or tagging new hedgerow trees.
- To restore active limestone quarries in a way that reduces their impact on the landscape and enhances biodiversity - for example by creating new ash woods, limestone grasslands and wetlands on low fertility substrates.
- To maintain and increase access to the countryside around towns and villages, and particularly circular neighbourhood walks.
- To create accessible natural green space close to towns and villages.
- To reduce traffic on country lanes and create new safe routes or 'greenways' for pedestrians, cyclists and horse riders between towns and villages.
- To encourage the conservation and appropriate management of roadside verges
- To secure the management of abandoned mineral workings and other sites of nature conservation importance.
- To encourage improvements to the environment of industrial sites and positive management of vacant industrial land.

## Limestone River Gorge

### Key characteristics

- A shallow gorge crossing the limestone plateau.
- Moderate slopes made up of glacial drift with occasional outcrops of limestone in cliffs, quarries and cuttings.
- The natural topography is modified in places by urban and industrial development, roads, railways and riverside engineering.
- A heavily urbanised river corridor: a mixture of residential, industrial and commercial development with areas of parkland, woodland and disused land.
- Well wooded in the west becoming progressively less wooded towards the city centre.
- Woodlands are a mixture of secondary semi-natural woodlands and scrub on neglected or inaccessible land, and structure planting associated with business parks, land reclamation and amenity planting schemes.

- Disused or neglected land and semi-natural riverside woods contain a varied and dynamic mosaic of brown-field habitats.
- An important transport corridor bounded by major roads and railway lines with landmark bridges.
- An open landscape with long views up and down the river but locally more enclosed and sheltered on the river bank.
- A landscape of rapid ongoing change.
- A strong industrial heritage of heavy industry and ship building still evident in places.
- A visually complex, often confused and incoherent landscape with an urban fringe character and neglected appearance in places, but also exciting and dramatic.
- The river bank has limited vehicular access and good pedestrian and cycling access and can be tranquil in contrast to the nearby City centre.

### Description

A shallow gorge crossing the limestone plateau, formed by glacial melt water. The valley side are moderately sloping and formed largely of glacial drift although there are occasional outcrops of magnesian limestone in cliffs, quarries and cuttings. The natural topography is modified in places by urban and industrial development, roads, railways and riverside engineering.

The river corridor is heavily urbanised with areas of residential, industrial and commercial development. Much of the latter is recent development on site formerly occupied by shipyards and heavy industry. There are areas of undeveloped land in the form of narrow corridors of woodland, areas of parkland and amenity open space, and pockets of disused or derelict land.

The valley is well wooded in the west, with dense woodlands on both banks, becoming progressively less wooded towards the city centre and the sea. Woodlands are a mixture of secondary semi-natural woodlands and scrub that have regenerated on neglected or inaccessible land, and structure planting associated with business parks, land reclamation and amenity planting schemes.

There are substantial areas of disused or neglected land which, together with tracts of secondary woodlands and scrub, contain a varied and dynamic mosaic of early successional brown-field habitats.

The valley is an important transport corridor, bounded by a major road to the north and a railway line to the south and crossed by landmark bridges. Vehicular access to the river itself is limited although there are good pedestrian and cycling routes along the river bank.

The landscape is visually open, and particularly from higher ground, with long views up and down the river. Locally it is more enclosed and sheltered on the river bank. It is a landscape of rapid change with new development frequently taking place, and particularly in the City centre. Despite this the industrial heritage of ship building and heavy industry remains strong in places and particularly in features like Wearmouth Bridge.

The landscape is visually complex, often confused and incoherent, with an urban fringe character and neglected appearance in places, but at the same time can be exciting and dramatic. The river bank itself can be tranquil in contrast to the nearby City centre.

### Trends, pressures and issues

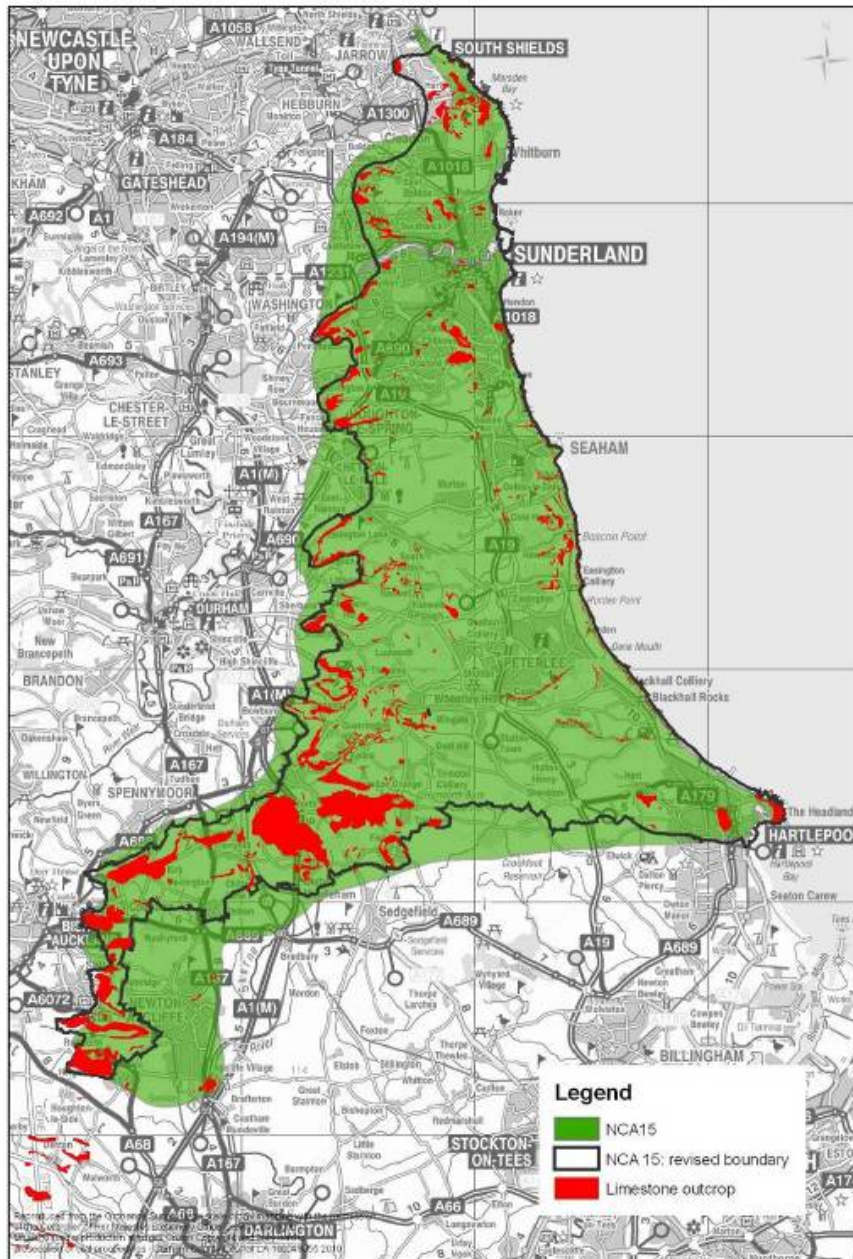
- There is ongoing pressure in many places for new development. This can threaten wildlife habitats but could also bring opportunities for landscape, access and biodiversity improvements.
- The industrial and urban fringe character of much of the landscape and the presence of disused land gives it a run-down and neglected appearance. This encourages fly-tipping and anti-social behaviour.
- Features of historical and cultural heritage importance are often under-valued and poorly understood and lack signage and interpretation.
- The landscape as a whole has potential as a major recreational resource for the city.

**Objectives**

- To improve the quality of the river corridor environment generally.
- To conserve, enhance and restore valued features of the landscape – limestone outcrops, riparian woodlands and brown-field biodiversity.
- To conserve and interpret features of historical and cultural heritage importance.
- To exploit the potential of new development to deliver environmental objectives such as improving access, increasing biodiversity and providing high quality urban green-space.
- To encourage improvements to the environment of industrial sites and positive management for biodiversity of vacant or disused industrial land.
- To maximise the potential of the river corridor as a strategic recreational resource for the city.

## Figures

Figure 1: Existing and revised boundary of NCA15







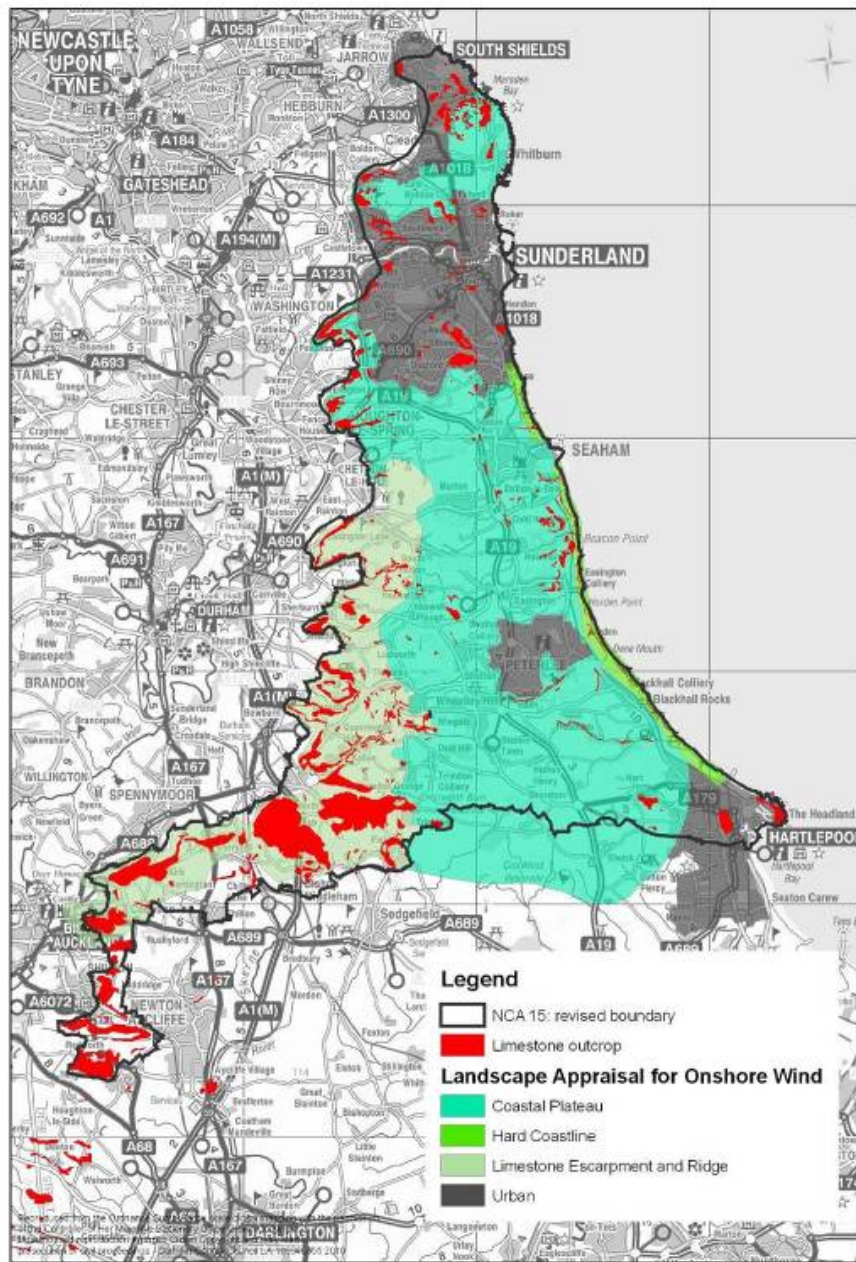
**Figure 3: CQC sub-zones**

The map displays the CQC sub-zones within the NCA 15 revised boundary. The boundary is shown as a thick black line. Limestone outcrop is indicated by red areas. The CQC sub-units are color-coded: Clay plateau (light green), Coast and coastal limestone plateau (dark green), and Limestone Escarpment (medium green). The map includes labels for major towns and cities such as Newcastle upon Tyne, Gateshead, Sunderland, and Hartlepool, as well as various roads and geographical features.

**Legend**

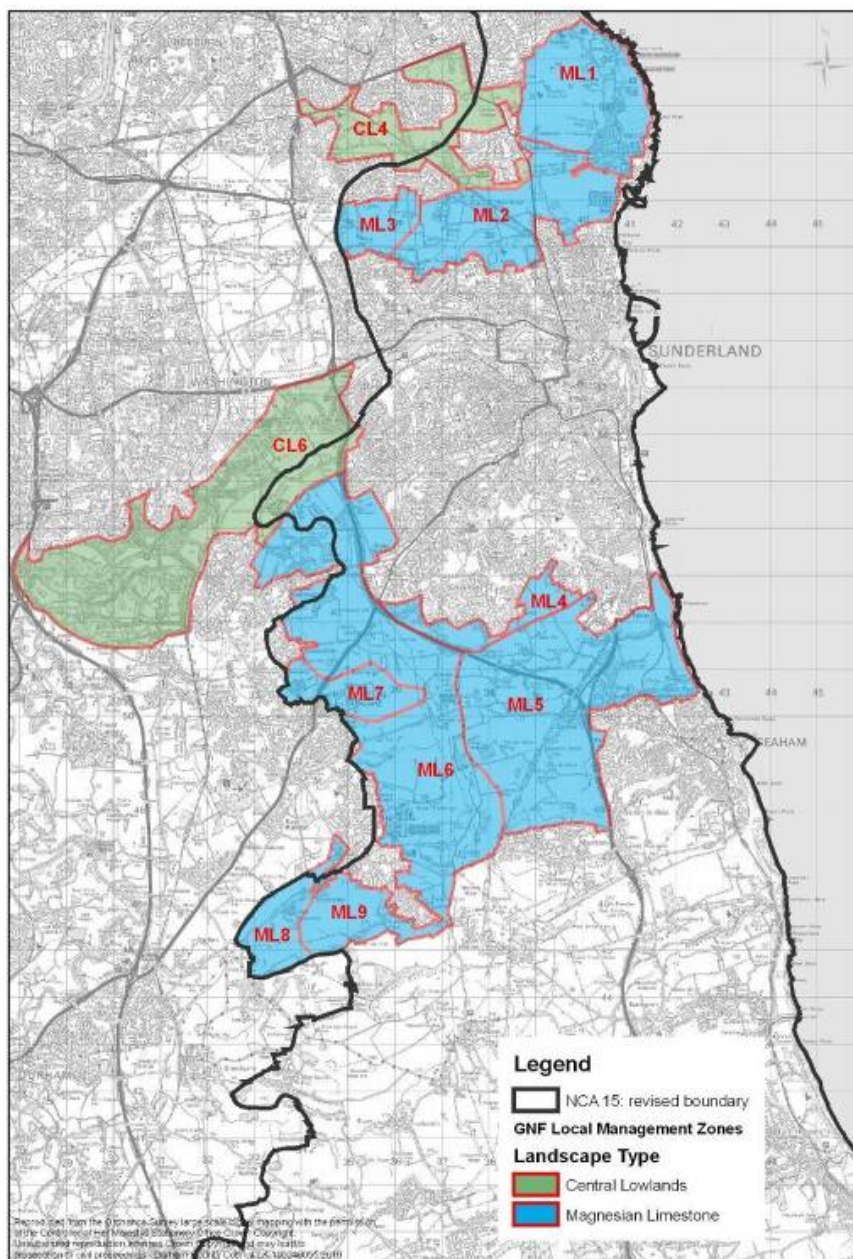
- NCA 15: revised boundary
- Limestone outcrop
- CQC Sub-units**
  - Clay plateau
  - Coast and coastal limestone plateau
  - Limestone Escarpment

Figure 4: Landscape appraisal for onshore wind typology



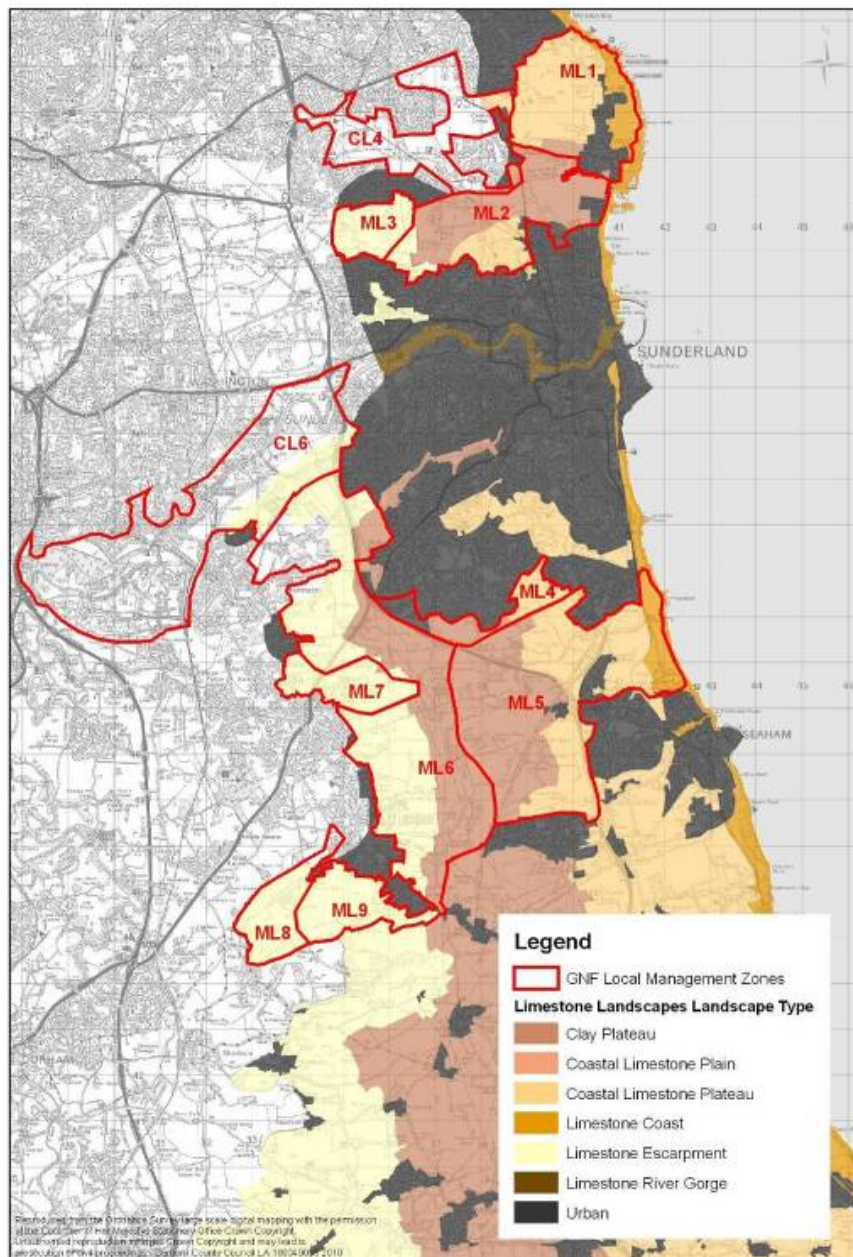


**Figure 5: Great North Forest Local Management Zones and revised NCA15 boundary**





**Figure 6: Great North Forest Local Management Zones and proposed Limestone Landscapes typology**



**Figure 7: Coverage of Local Authority LCA.**

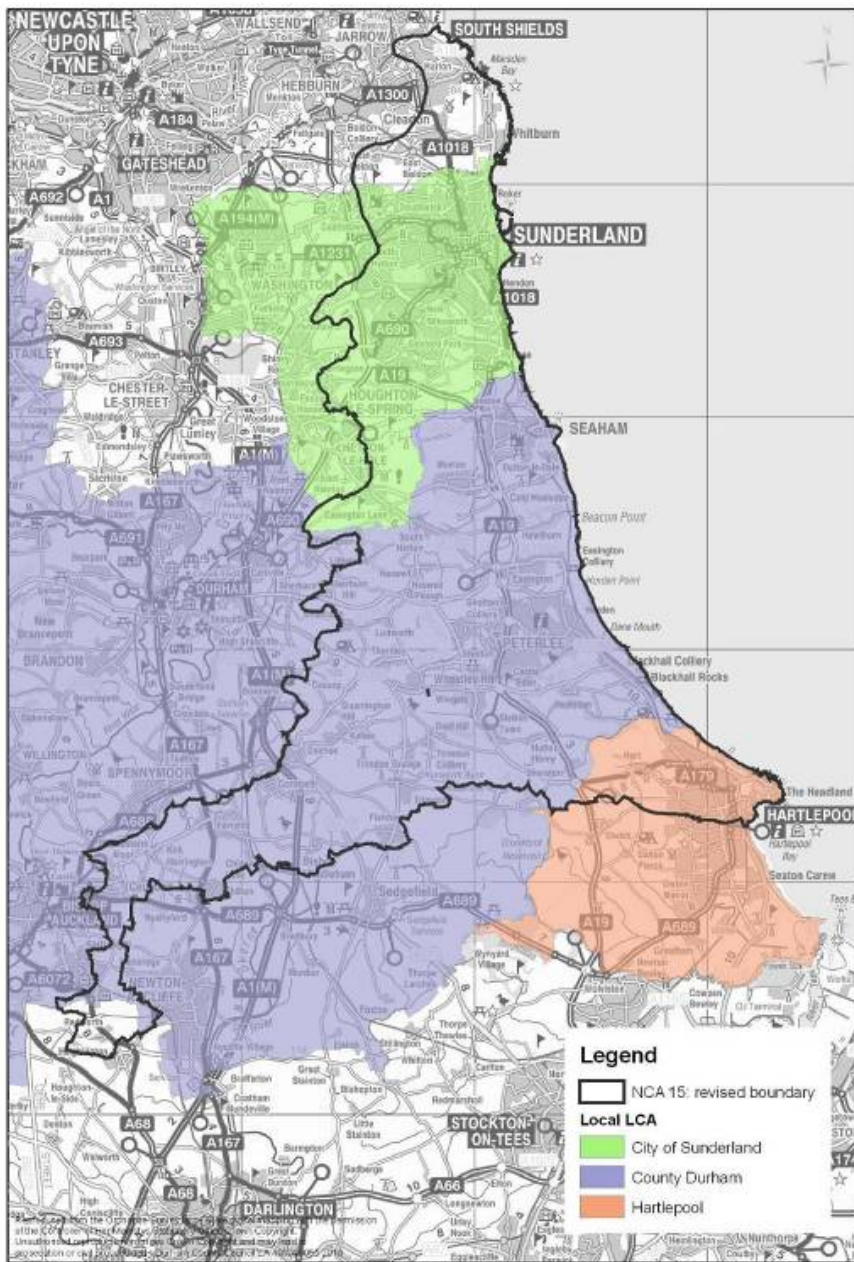
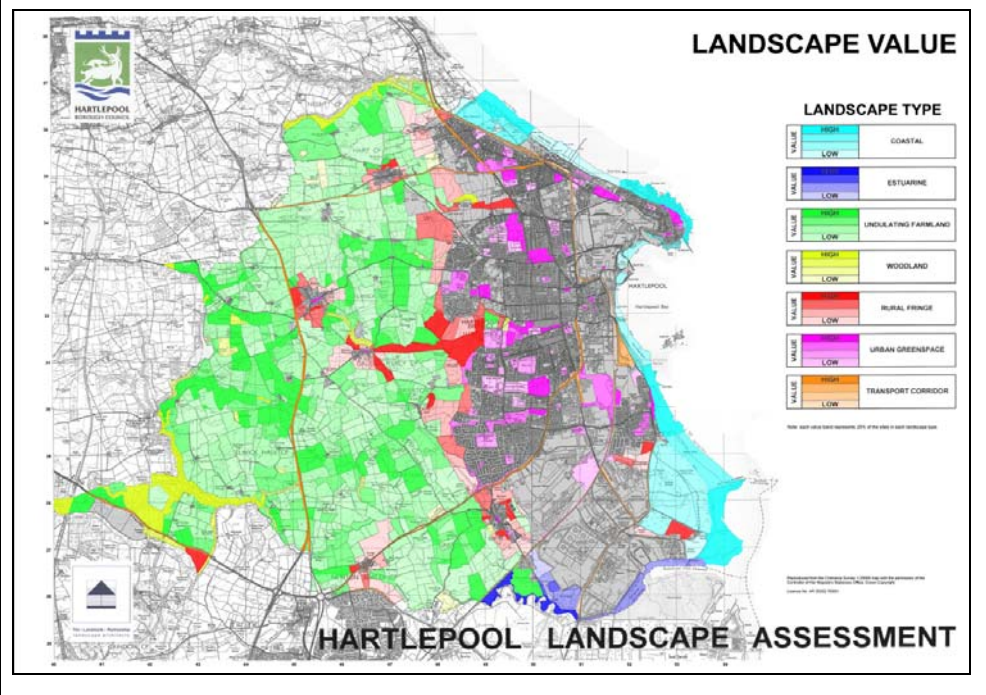
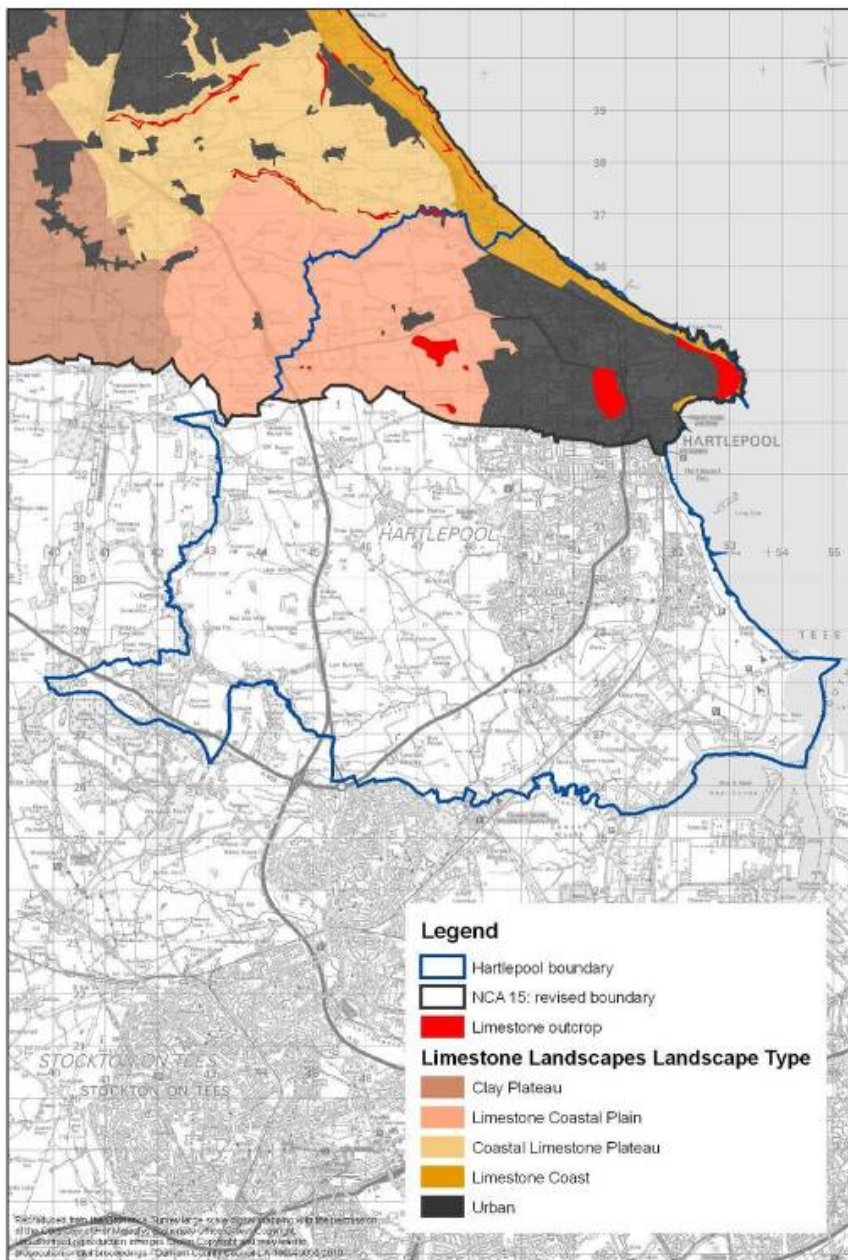


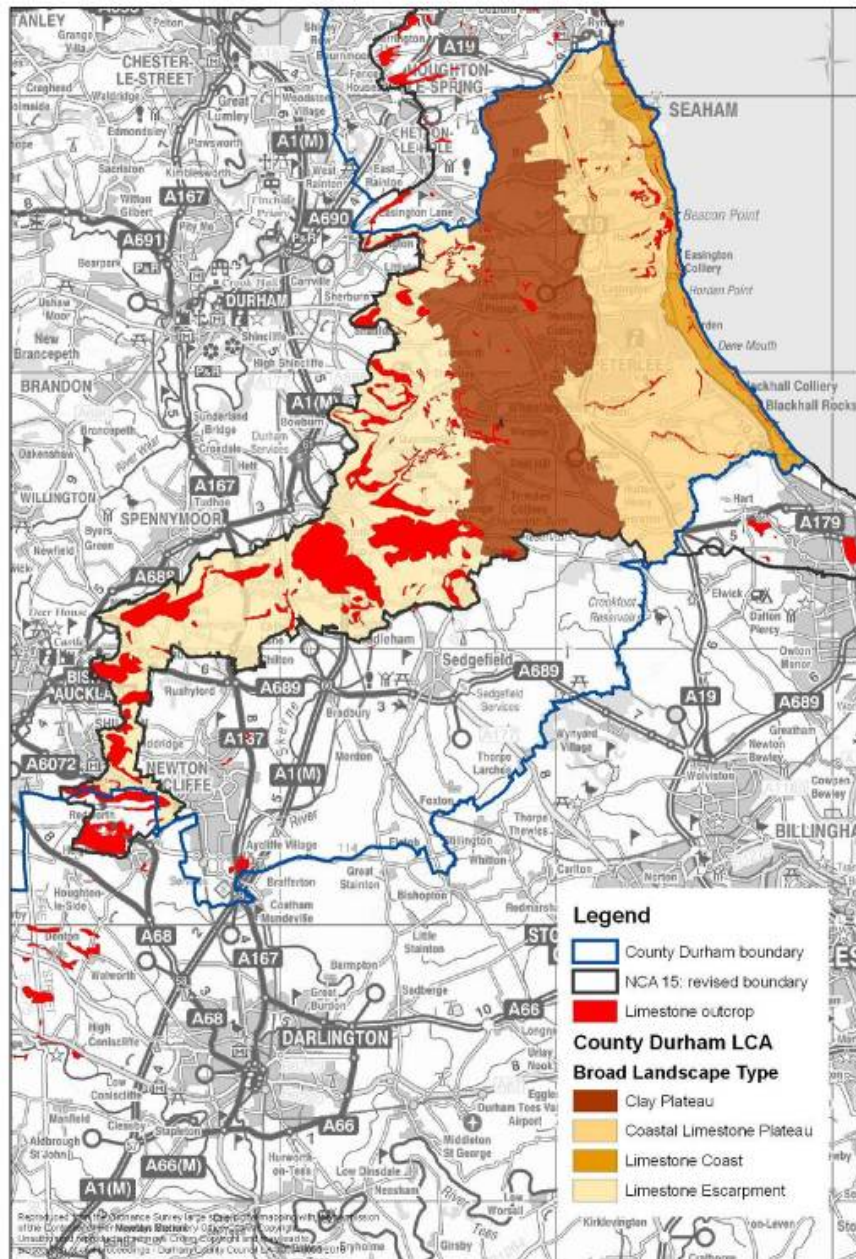
Figure 8: Hartlepool Landscape Assessment typology



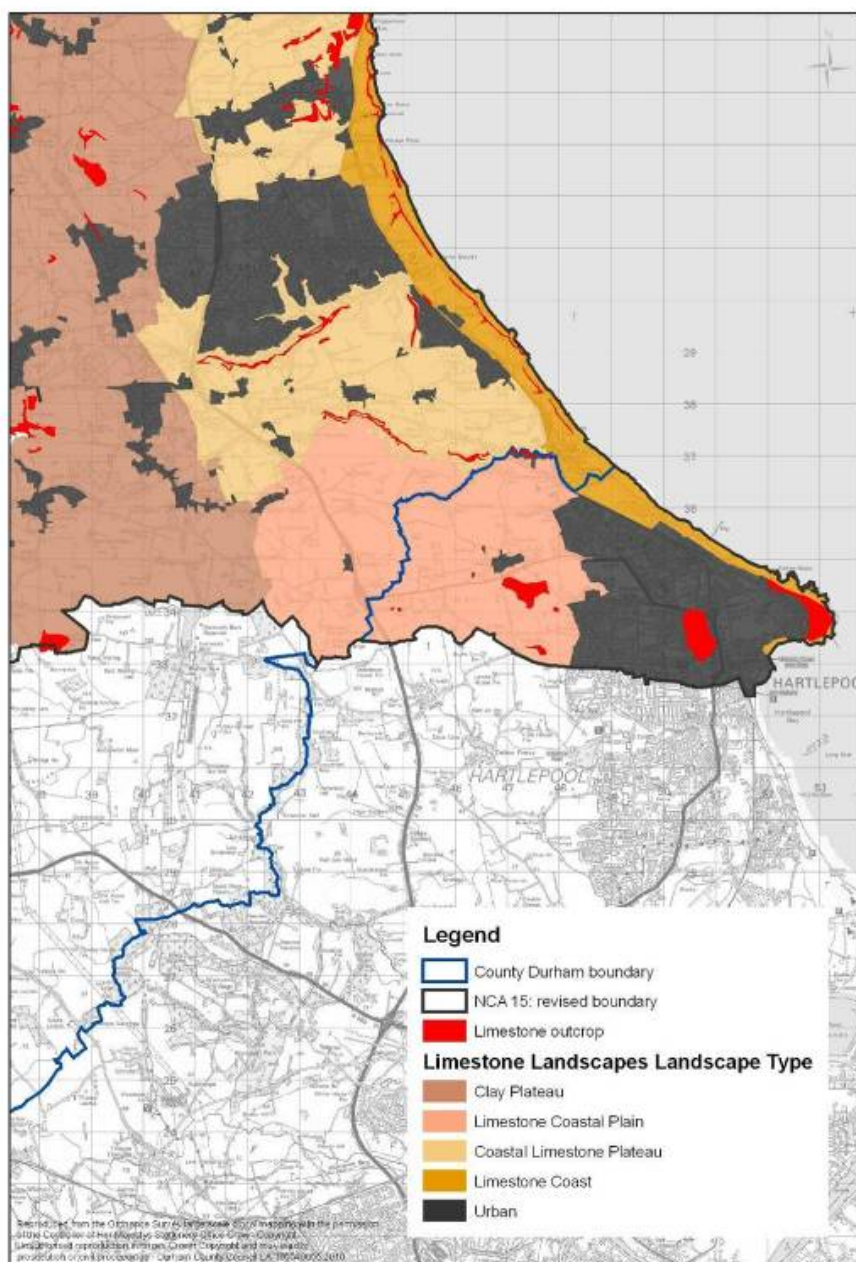


**Figure 9: Proposed Limestone Landscapes typology in Hartlepool**

**Figure 10: County Durham Landscape Character Assessment typology**



**Figure 11: Proposed Limestone Landscapes typology in Durham (detail).**





**Figure 12: Sunderland City Council LCA Character Areas**

**Legend**

- City of Sunderland boundary
- NCA 15: revised boundary
- Sunderland LCA Landscape Character Areas**
  - Barnes Burn
  - Central Plateau
  - Coastal Farmland
  - Downhill to Seaburn Dene
  - Hylton Dene
  - Limestone Escarpment
  - Railway Sidelings
  - River Wear East
  - Seaburn Roker Seafront
  - Silksworth & Tunstall Corridor
  - South Sunderland Coast
  - Urban

**Figure 13: Proposed Limestone Landscapes typology in Sunderland**

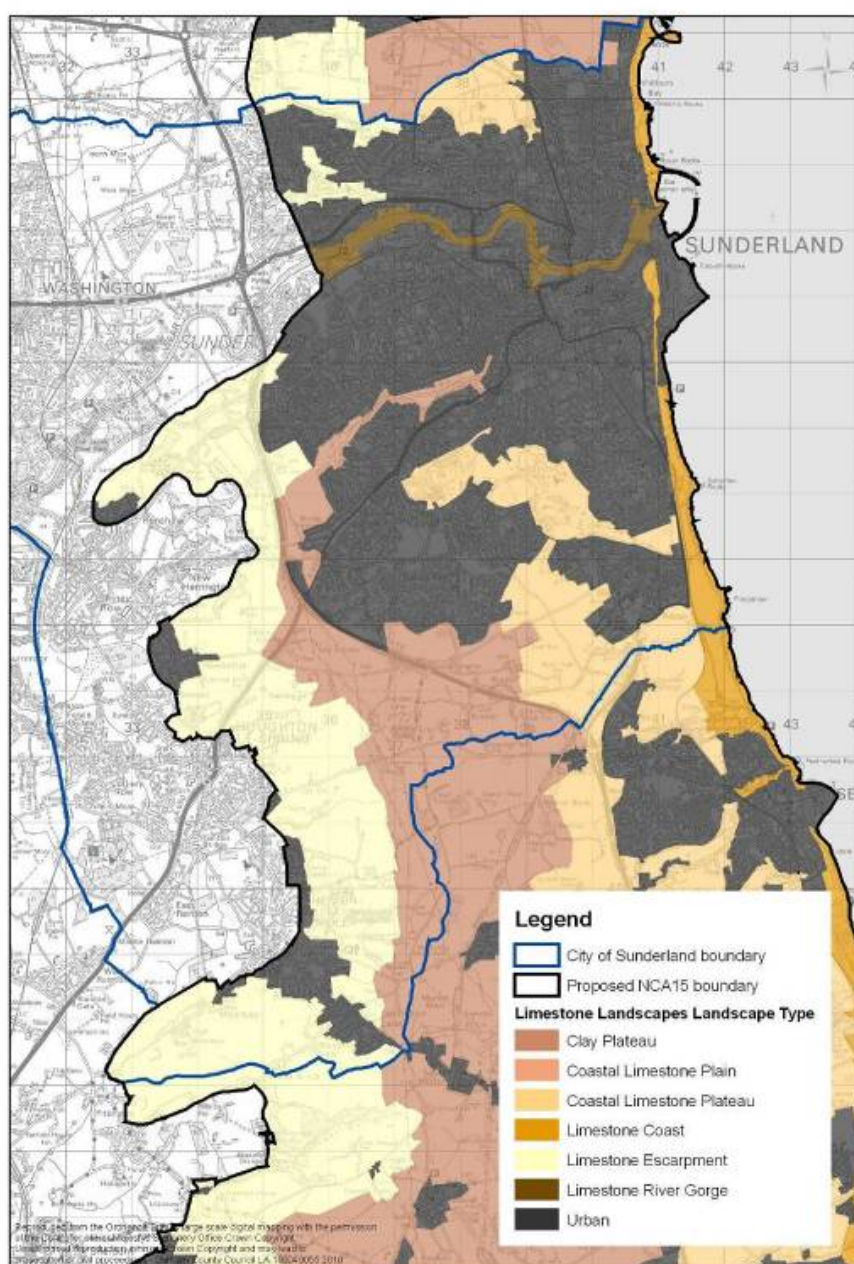




Figure 14: Area detail: Penshaw

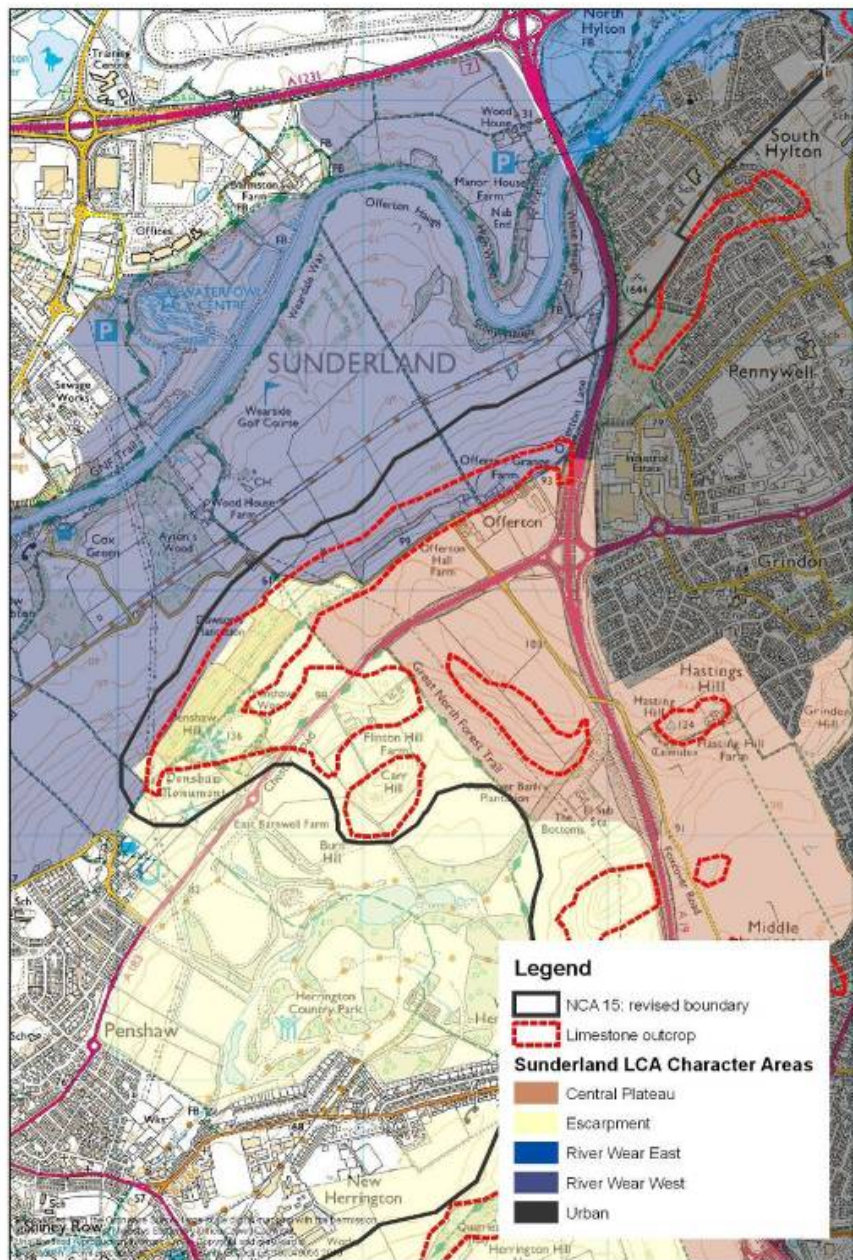
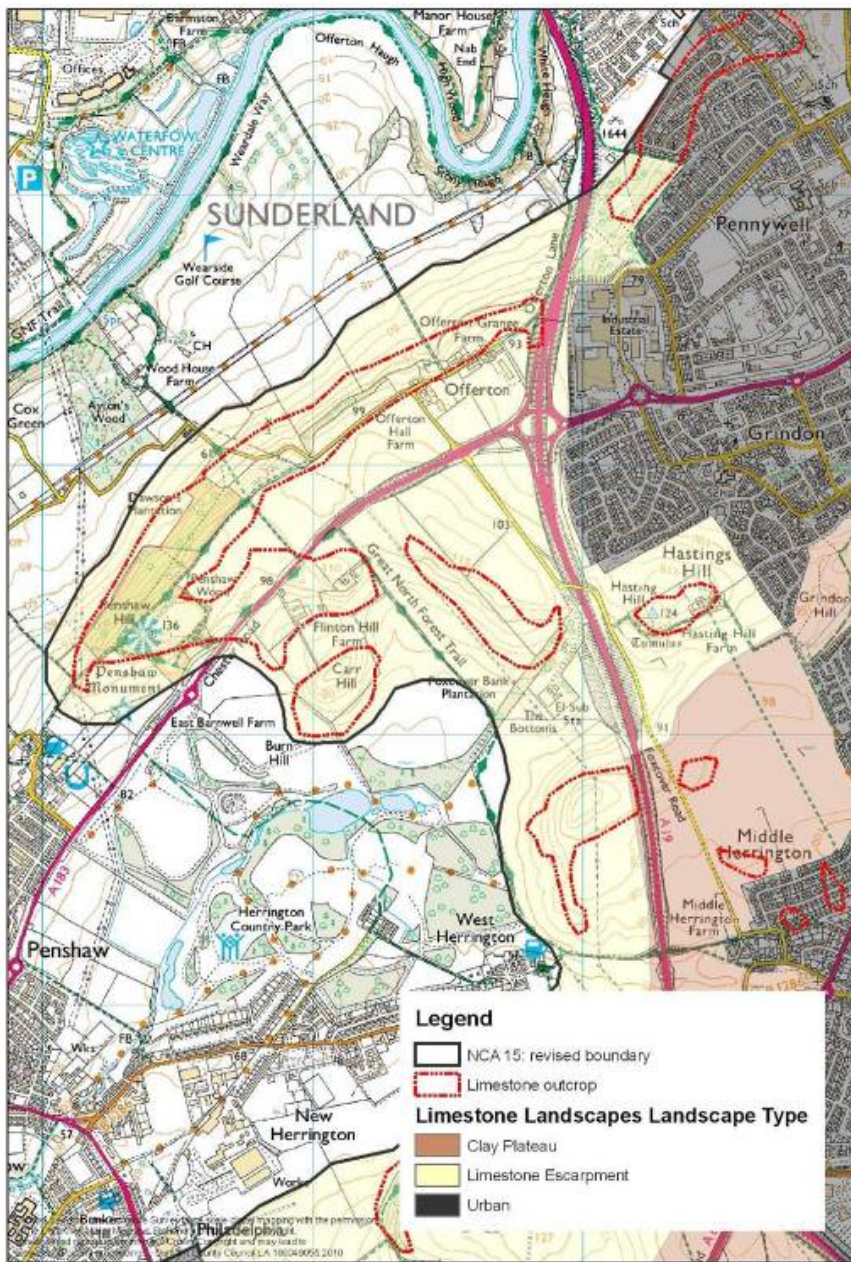


Figure 15: Area detail: Penshaw option 1





**Figure 16: Area detail: Penshaw option 1**

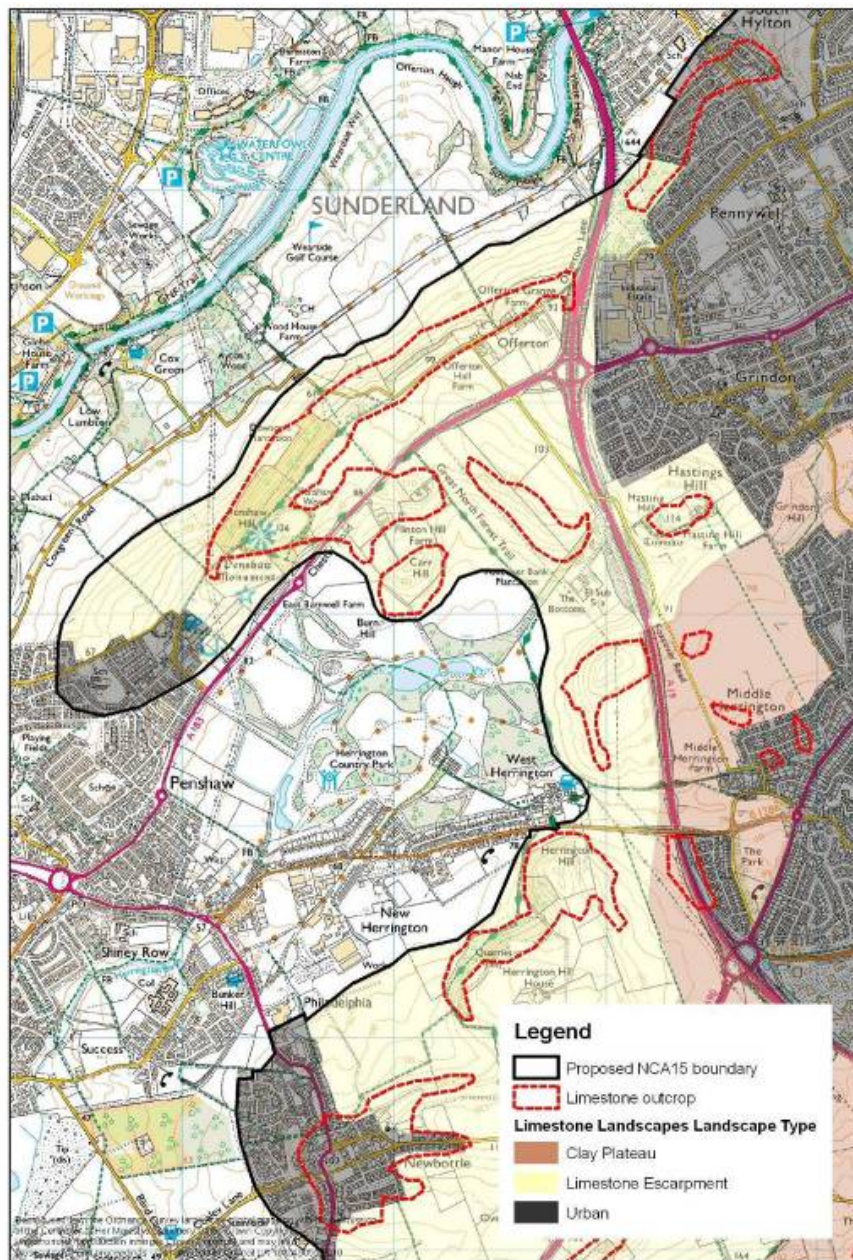






Figure 18: Proposed Limestone Landscapes typology in Darlington

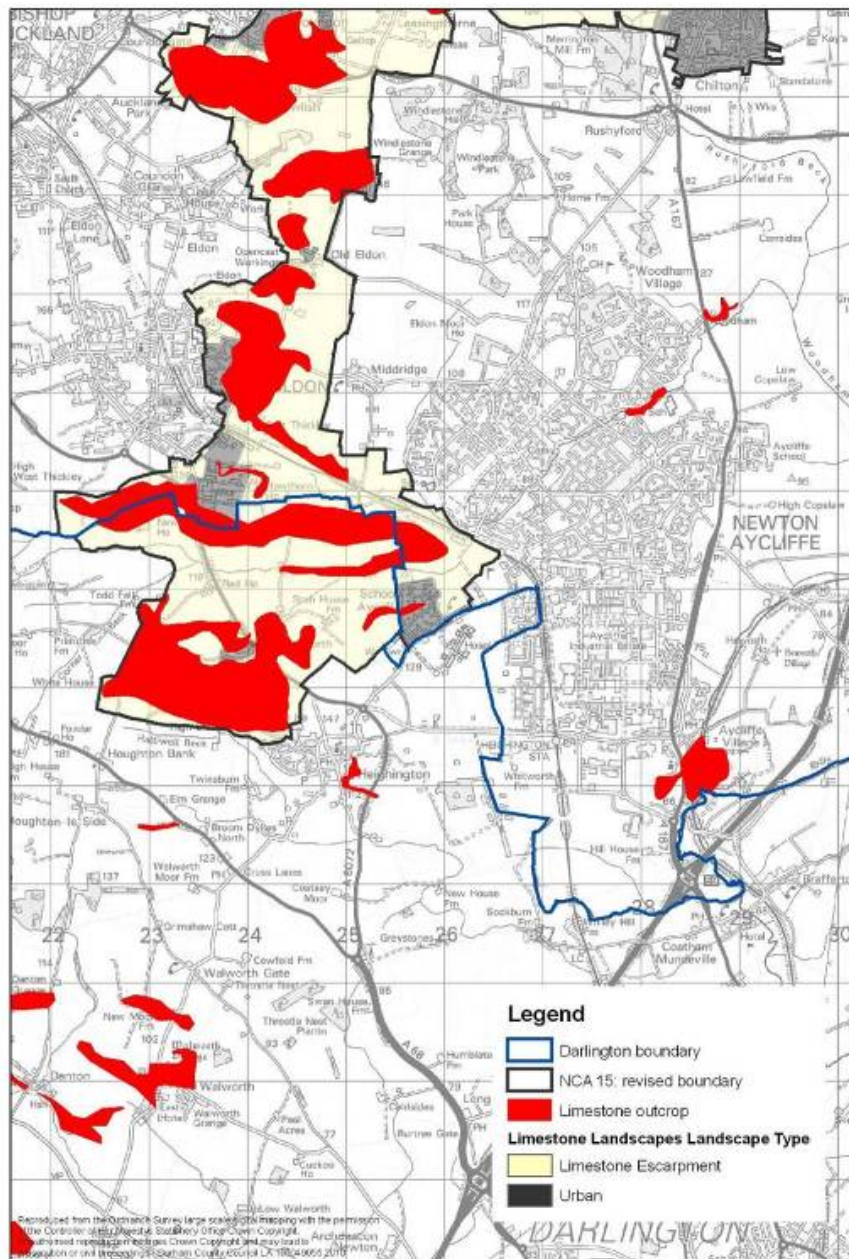
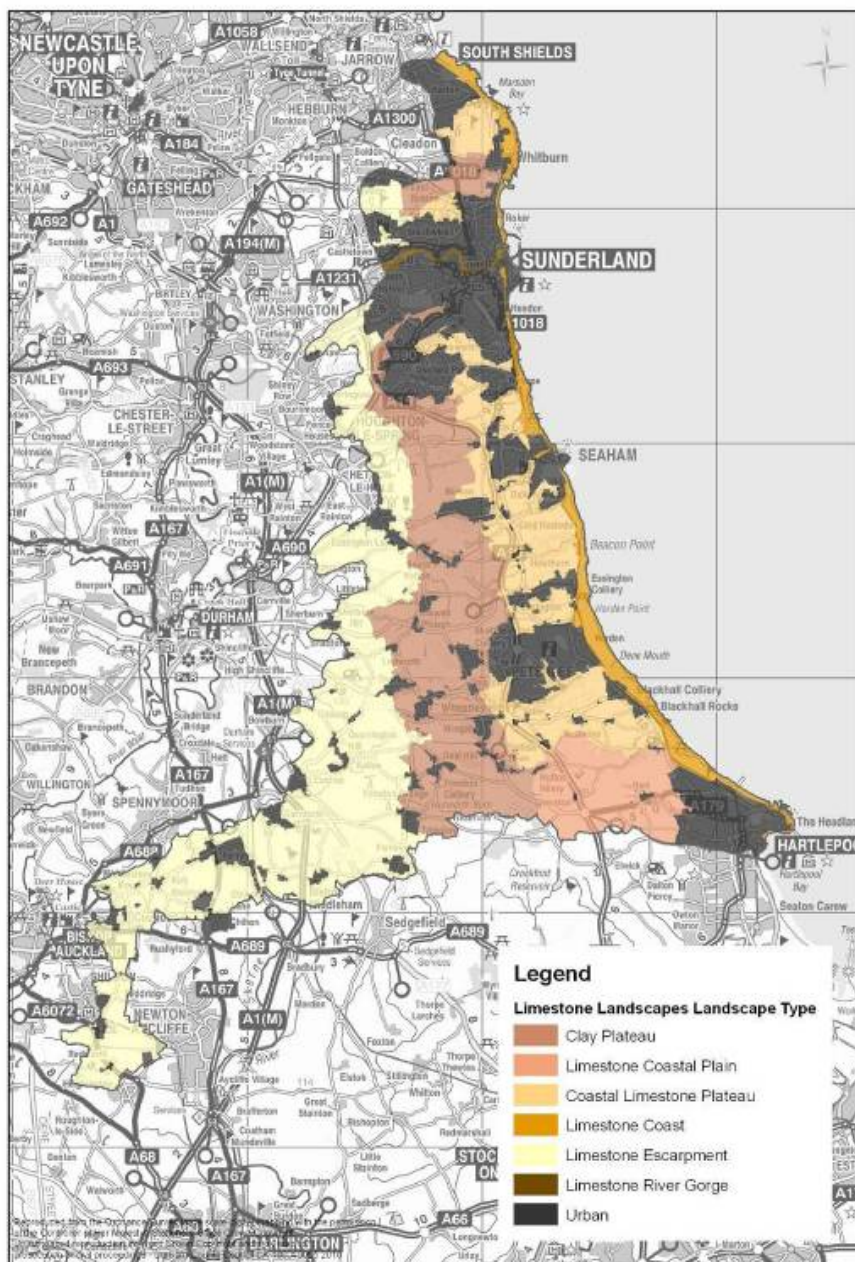
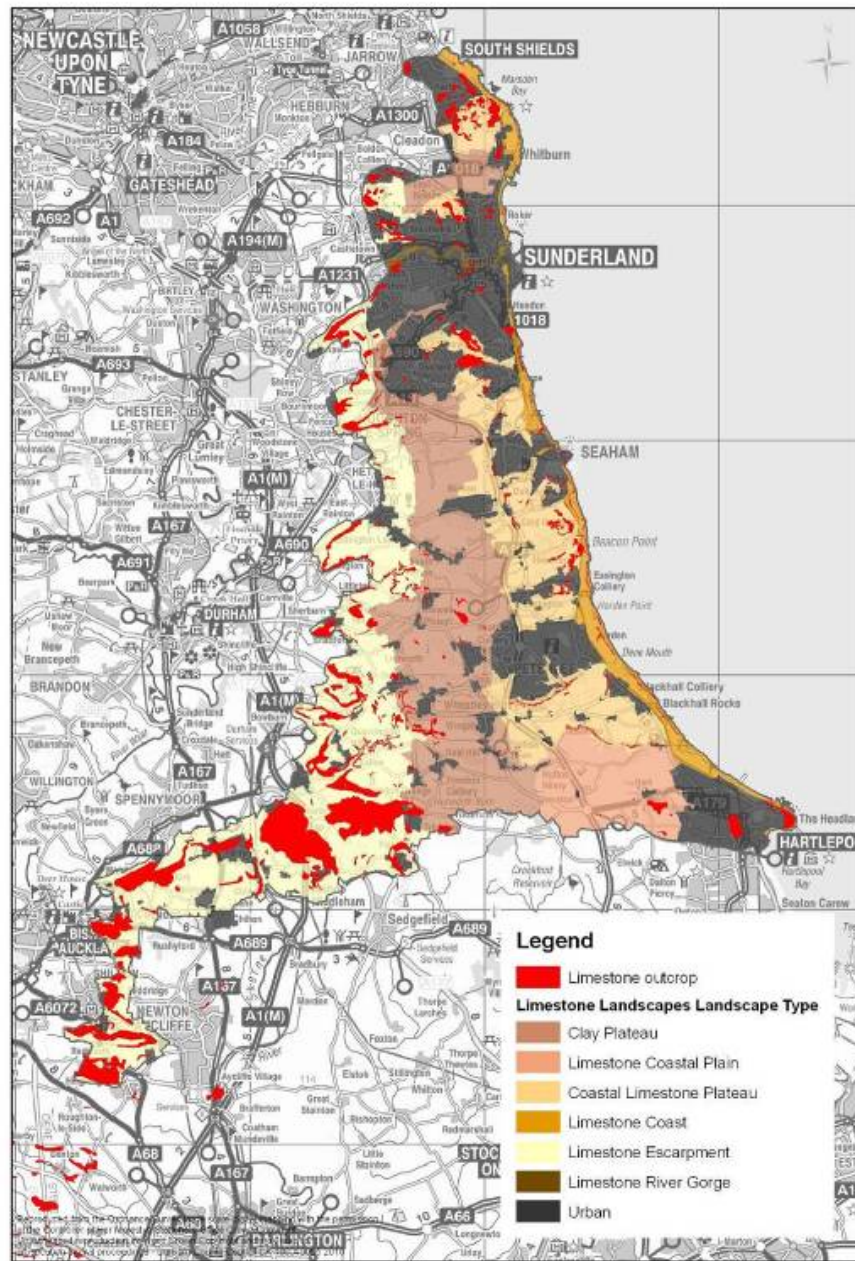


Figure 18: Proposed Limestone Landscapes typology



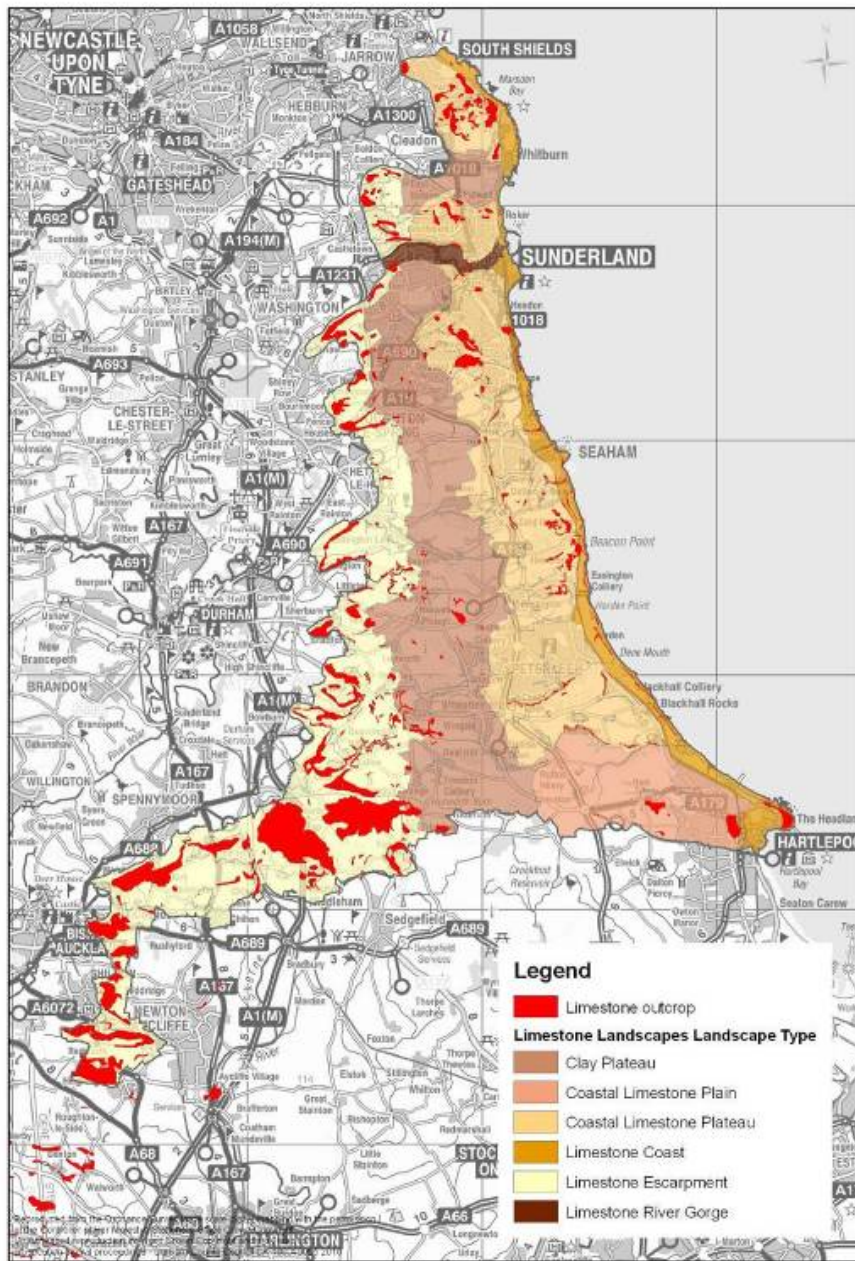


**Figure 19: Proposed Limestone Landscapes typology showing relationship with limestone outcrop**





**Figure 20: Proposed Limestone Landscapes typology showing typology underlying urban areas**



## Appendix 3: Important Rare and Endangered Species of the DMLNA

Scientific name	English name	Status in 2003
Acinos arvensis	Basil thyme	2 sites
Antennaria dioica	Mountain everlasting	Thrislington
Asplenium marinum	Sea spleenwort	7 Sites
Astragalus danicus	Purple milk-vetch	<10 Sites
Carex dioica	Dioecious sedge	2 Sites
Carex ericetorum	Rare spring sedge	Extinct, was Thrislington
Cephalanthera longifolia	Sword-leaved helleborine	Extinct, was four coastal dunes
Cirsium heterophyllum	Melancholy thistle	<10 Sites, declining
Collema bachmanianum	A Lichen	Fulwell Quarry
Cornus sanguinea	Dogwood	<10 Sites
Cypripedium calceolus	Lady's slipper orchid	Extinct, reintroduced
Dactylorhiza traunsteineri	Narrow-leaved marsh orchid	Blackhall
Daphne laureola	Spurge laurel	<10 Sites
Dryopteris submontana*	Rigid buckler fern	Raisby Quarry
Epipactis atrorubens	Dark-red helleborine	<10 Sites
Epipactis palustris	Marsh helleborine	Blackhall, Hart Warren
Filipendula vulgaris	Dropwort	2 sites, declining
Helianthemum nummularium*	Common rock-rose	>10 Sites
Hypericum montanum	Pale St. John's-wort	>10 Sites
Juniperus communis	Juniper	Almost extinct, reintroduced
Linum perenne anglicum	Perennial flax	Thrislington area, Harton
Lithospermum officinale	Gromwell	Crimdon Dene
Lophozia perssonii	A Liverwort	Bishop Middleham Quarry
Molinia caerulea	Purple moor-grass	>10 Sites
Ophrys apifera	Bee orchid	<10 Sites, increasing
Ophrys insectifera	Fly orchid	2 Sites
Orchis morio	Green-winged orchid	Extinct at Blackhall, now re-introduced
Orchis ustulata	Burnt-tip orchid	Hart Warren & ? Crimdon Dunes?
Paris quadrifolia*	Herb paris	5 Sites
Parnassia palustris	Grass-of-Parnassus	<10 Sites
Pinguicula vulgaris	Common butterwort	<10 Sites
Plantago maritima	Sea plantain	>10 Sites
Primula farinosa	Bird's-eye primrose	<10 Sites
Pyrola rotundifolia	Round-leaved wintergreen	Blackhall, Castle Eden
Ribes spicatum	Downy currant	<10 Sites
Rubus saxatilis	Stone bramble	Castle Eden Dene & Thrislington
Selaginella selaginoides	Lesser clubmoss	<10 Sites
Sesleria albicans	Blue moor-grass	>10 Sites
Tilia cordata*	Small-leaved lime	Castle Eden, Hawthorn
Trollius europaeus	Globeflower	1 site

Source: Hedley, Clifton & Mullinger (1997) and Durkin\* (2003)



## Appendix 4: A Full List of Designations

### European, national, regional & local designations.

#### Landscape designations

Parts of the Durham Coast along with wooded landscapes around Castle Eden, Wingate and Ellemore, are designated as Areas of High Landscape Value (AHLV) in Local Plans. Much of the coast is also designated as Heritage Coast.

#### International Nature Conservation Designations

Parts of the coast, together with Castle Eden Dene and Thrislington National Nature Reserves, are designated as Special Areas for Conservation (SAC). Sections of the coast are also within the Northumbria Coast Special Protection Areas (SPA).

#### National and Local Nature Conservation Designations

Within the area there are four National Nature Reserves: Cassop Vale, Thrislington and Castle Eden Dene as well as a number of Local Nature Reserves. The area contains a relatively large number of Sites of Special Scientific Interest (SSSI) including magnesian limestone grasslands, abandoned limestone quarries and ancient ash and yew woodlands. A large number of similar habitats are designated as Local Sites – many on the disturbed sites of old quarries and mine workings, railway lines, road verges and clay pits.

#### National Nature Reserves

Cassop Vale  
Castle Eden Dene  
Durham Coast  
Thrislington

#### Local Nature Reserves

Carley Hill Quarry	Little Wood
Coxhoe Hall Wood	Raisby Quarry
Fulwell Meadows	Tunstall Hills
Hetton Bog	Wingate Quarry
Hylton Dene	

#### Local Wildlife Sites

A1 Flashes	Halliwell Banks	Penshaw Hill
Aycliffe Nature Park	Hart to Haswell Railway	Penshaw Pallion Railway
Aycliffe Quarry	Harton Downhill	Penshaw Wood
Barons Quay Wood and Barons Quay	Haswell Wood Shotton	Pesspool Lane Ponds
Bishop Middleham	Hawthorn Bridge Pumping Station	Pesspool Wood
Blakeney Woods	Hawthorn Quarry	Pittington Hill
Boldon Colliery Former	Hazel Dene	Quarrington Hill and Coxhoe

Railway Line		Bank Plantation
Boldon Crossings Pond	Heads Hope Dene	Raisby Pond
Boldon Flats	Hendon Cliffs	Raisby Way
Boldon Lake	Hendon Railway	Redworth Grassland
Burdon Dene	Herrington Hill Woodland	Redworth Wood
Byron's (Little Seaham) Dene	Hesledon Crimdon Dene Complex	Road Verge
Captains Well	Hesledon Moor East	Robin House and Moorsley Marsh
Carr Hill	Hesledon Moor West	Roker Cliffs and Parson's Rocks
Carr Wood New Lake and Tank Stell	Hetton Bogs	Rough Dene
Carstead Wood West	Hetton Lyons	Rough Furze Quarry
Castle Eden Pond	Hetton Park	Running Waters Quarry
Cherry Knowle Dene	Horden Dene	Ryhope beach
Claxheugh Riverside	Houghton Hill Cut and Scarp	Ryhope Dene
Cleadon Hill Cliffs	Hulam Reed Swamp	Ryhope Dene Railway Cutting
Cleadon Pumping Station	Hurworth Burn Reservoir	Ryhope Denemouth
Cleadon Quarry	Hylton Castle Grassland	School Aycliffe Wetland
Cleveland Gorse	Hylton Colliery Pond	Seaham Dene
Cold Hesledon	Hylton Dene	Shadforth Dene
Coop House Wood	Hylton Plantation	Sherburn Hill
Copt Hill	Island Farm	Shildon Sidings
Cowtons Pond	Island Farm Railway	Silent Bank (Road Verge)
Coxhoe Ponds	Kelloe Plantation	Slingley Pond
Cumby Pond	Loch Kenny Pond	South Hetton Pond
Cumby's Plantation	Low House Copse	South Hylton Dene
Dalton Dene	Ludworth Pit Heap	South Murton Marsh
Dawdon Dene	Mainsforth Pond East	South Shields Dunes
Deaf Hill Marsh	Mainsforth Recreation Complex Pond	The Clouds
Downhill Meadows	Make-Me-Rich Meadow	The Snipe
Downhill Old Quarry	Marsden Old Quarry	Thornley Dene
Duncombe Moor	Mere Knolls Cemetery	Tilsheds
Edderacres	Merry Knowle Quarry	Tilsheds Burn
Eden Grange Pond	Middlestone Fen	Tilsheds Local Nature Reserve
Eldon Grassland	Mill House Pond	Timber Beach
Elmore Golf Course	Mill Wood	Trimdon Grange and Railway
Elmore Horseshoe Pond	Mount Pleasant Marsh	Trimdon Grange Pit Heap
Elmore Vale	Mowbray Park	Tursdale Ponds
Elmore Woods (1)	Murton Bridge Carr	Tuthill Quarry
Elliscope Farm East	Murton Grassland	Undercliffe Pond
Eppleton Quarry	Murton Meadows	Warden Law Quarry
Eppleton Railway	New Road Fields	Warren House Gill Grassland
Ferryhill Cut	New Winning Pumping Station Pond	Washington Wildfowl and Wetlands Centre
Ferryhill Stell & Grassland	Newport Dene	Wear River Bank Woods
Field House Farm	Newport Railway Cutting	Wearmouth Riverside
Foxcover Plantation	North Close Marsh	Park/Wearmouth Colliery
Fulwell Meadows	North Dock Tufa	Wellfield Brick Ponds
Garmondsway Moor Quarry	Old Towns Quarry	Whitburn Bents
Garmondsway Triangle	Oxclose	Whitburn Golf Course
Grimestone Banks	Paddock Plantation Pond	Whitburn Point

**Sites of Special Scientific Interest**

Bishop Middleham Quarry	Hesledon Moor	The Bottoms
Boldon Pastures	Hetton Bogs	The Carrs
Cassop Vale	High Haining	Thrislington Plantation
Castle Eden Dene	High Moorsley	Town Kelloe Bank
Charity Land	Hulam Fen	Trimdon Limestone Quarry
Claxheugh Rock & Ford Limestone	Humbledon Hill	Tunstall Hills & Ryhope
Cleadon Hill	Hylton Castle	Tuthill Quarry
Crime Rigg & Sherburn Hill Quarries	Joe's Pond	Wear River Bank
Dawson's Plantation Quarry	Middridge	West Farm Meadow, Boldon
Durham Coast	Moorsley Banks	Wingate Quarry
Fishburn Grassland	Pig Hill	Yoden Village Quarry
Fulwell & Carley Hill Quarries	Pike Whin Bog	
Gilleylaw Quarry	Pittington Hill	
Hart Bog	Quarrington Hill	
Harton Down Hill	Raisby Hill	
Hastings Hill	Raisby Hill	
Hawthorn Dene	Sherburn Hill	
Hawthorn Quarry	South Hylton	
Herrington Hill	Stony Cut, Cold	
Hesledon Moor East	Tees &	
Bishop Middleham Quarry	Hesledon Moor	

**Earth Heritage Designations**

The area contains a number of Geological/Geomorphological Sites of Special Scientific Interest (SSSI) and County Geological/Geomorphological Sites or Regional Important Geological/Geomorphological Sites (RIGS) . These include natural and man-made exposures of the Permian limestones and sands on the coast and in quarries, road and railway cuttings, together with glacial features including kames and melt-water channels.

**Geological Sites Of Special Scientific Interest****County Geological Sites**

Crime Rigg Quarry	Beacon Hill	Middridge Railway Cutting
Sherburn Hill Quarry	Bishop Middleham Quarry	Old Quarrington Quarry
Durham Coast	Castle Eden Dene	Old Town Quarry
Hawthorn Quarry	Chilton Quarry	Parson's Rocks
Middridge Quarry	Dene Holme	Raisby Rail Cutting
Raisby Hill Quarry	Dropswell Farm	Rough Furze Quarry
Trimdon Limestone Quarry	Easington Colliery	
Yoden Village Quarry	Underground Tunnel	Sheraton Kames
	Easington Raised Beach	Shotton Valley East Side
		Thornley-kelloe Meltwater Channels
	Ferryhill Gap	Thrislington Quarry
	Hesleden Dene	Townfield Quarry,
	Houghton Hill	Easington

## Archaeological sites and monuments

The area contains archaeological remains from the Neolithic period onwards, many of which are recorded in the Durham Sites and Monuments Record (SMR). Features from most periods are concentrated along the coast and the escarpment. Scheduled Ancient Monuments (SAM) include a large number of deserted medieval settlements.

### Scheduled Ancient Monuments

Coxhoe Medieval Settlement  
 Dalden Tower: A Medieval Fortified Manor House And Related Earthworks  
 Deserted Medieval Village And Field System At Garmondsway  
 Deserted Medieval Village, Moated Site, And Early Medieval Timber Building At Castle Eden  
 Enclosed Hilltop Settlement On Pig Hill, 600m South West Of High Fallowfield  
 Fishpond, Enclosures And Section Of Field System 165m North West Of Elwick Hall  
 Fishponds 70m North Of St Mary Magdalene's Church  
 Great House 50m West Of St Mary Magdalene's Church  
 Hasting Hill Cursus And Causewayed Enclosure, 600m South Of Hasting Hill Farm  
 Haswell Colliery Engine House, 180m North West Of Plough Farm  
 Heugh Coastal Artillery Battery Immediately North West Of Heugh Lighthouse  
 High Haswell Chapel 300m South East Of Low Haswell  
 Hylton Castle: A Medieval Fortified House, Chapel, 17th And 18th Century Country Houses And Associated Gardens  
 Low Throston Deserted Medieval Village  
 Ludworth Tower  
 Marsden Lime Kilns  
 Medieval Settlement And Open Field System At Old Wingate  
 Middleham Castle  
 Monkwearmouth Anglo-Saxon Monastery And Medieval Priory  
 Old Thornley Medieval Settlement, Open Field System And Hollow Way  
 Prior's Hall, Hallgarth  
 Round Barrow On Hasting Hill, 230m West Of Hasting Hill Farm  
 Ryhope Pumping Engines  
 Seven Sisters Round Barrow, Copt Hill, Houghton-Le-Spring  
 Sheraton Medieval Settlement And Open Field System

## Built Heritage

Some of the older settlements the Limestone Landscapes area are designated as Conservation Areas. There is a concentration of listed buildings in and around Sunderland, however the rest of the area is not particularly rich in listed buildings but contains a wide variety, from mediaeval park walls to colliery buildings. There are also a small number of relic historic parklands in the area. Parkland at Castle Eden is included on English Heritage's Register of Parks and Gardens of Special Historical Interest, as is small modern urban parkland in Peterlee new town.

### Registered Parks & Gardens

Mowbray Park	Ward Jackson Park
North & South Marine Parks And Bents Park	Windlestone Hall
Pasmore Pavilion	
Roker Park	
The Castle, Castle Eden	

### Conservation Areas

Ashbrooke	Headland	Sherburn
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Aycliffe Village	Kirk Merrington	Silksworth Hall
Bishop Middleham	Mainsforth	St Michael's
Bisopwearworth	Middridge	Sunderland Central
Castle Eden	Newbottle	The Cedars
Cleadon	Old Cassop	The Green Ryhope
Cleadon Hills	Old Sunderland	Trimdon Village
Cornforth	Roker Park	Whitburn
Easington Village	Seaham	Whitburn Bents
East Boldon	Shadforth	Windlestone
Elwick	Roker Park	
Hallgarth	Seaham	
Hawthorn	Shadforth	

## Appendix 5: A List of all the Projects Initially Put Forward

Programme							
Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects	
A1 (G2) Mowbray Park and Quarry <ul style="list-style-type: none"> <li>Clean up quarry faces</li> <li>Interpretation.</li> <li>Signposts' to other areas'</li> <li>Possible location for introductory easy access sensory trail</li> </ul>	Sunderland CC, Tyne and Wear Archive and Museums, BGS, Friends of Mowbray Park	12k	Mowbray	Quarry faces, quarry spoil heaps Viewpoint to Tunstall Hill Road cutting/ faulting Paths etc already in place Geology 'in the field' adjacent to museum and city centre	2011-12	A19, B1, C2, C4, C7, C9	
A2 (G3) Marsden Old Quarry Clean Rock faces Create access to best geological features Improve paths Interpretation?	South Tyneside C, Local Group?, BGS	7k	Marsden	Well used and site is managed, excellent links to biodiversity. Improvement work currently in progress. Co-funding may be available. (HLS). Also volunteers Would link well with trail/interpretive leaflet to Marsden Bay and Marsden Limekiln. Local Nature Reserve	2011	A19,A31,B1,C2, C4,C7,C9,C17	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A3 (G4). Tunstall Hills <ul style="list-style-type: none"> <li>•Improve interpretation</li> <li>•Clean graffiti</li> </ul> Re-excavate and enable safe access to fossil material available	SCC, NE, BGS, Tunstall Hills Protection Group	15k	Tunstall Hills	A small research excavation was undertaken in 1985, to expose an abundant and diverse fossiliferous succession near the base of the reef to the south of Rock Cottage. In 1986 Sunderland Borough Council extended the outcrop and the locality was fenced and footpaths laid to allow access for geological parties. The site still has good fossil material but is very overgrown, littered and unsafe. It could be cleaned and re-excavated. Good viewpoint SSSI & Local Nature Reserve	2011-2012	A1,A19,B1,B3,C7, C9
A4 (G13). Carley Hill/Fulwell Quarries Clear faces to expose best examples of concretionary limestone and improve access Interpretation	SCC NE Local Community BGS	13k	Carley Hill	Good path system in place, improvements due Spring 10, New interpretation, paths. Site earmarked for 2018 World Cup Football Fest SSSI LNR	2010-11	A1,A19,B1,B3,C7, C9

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A5 (G18). Middridge Quarry <ul style="list-style-type: none"> <li>• Interpretation</li> <li>• Expose new faces, create fossil casts</li> <li>• Feature on the importance of the area for fossils of international importance-incorporate casts of fossils for examination</li> <li>• Link to a fossil trail</li> </ul>	NE BGS	20-30k	Middridge	Links to Archeo/Railway heritage Exposes rocks from the basal unconformity and breccia up to Ford Formation; here the Marl Slate Formation is world famous for fossil vertebrates, fish and plants. SSSI	2012 onwards	Locomotion access link, A19,B1,B3,C7,C9,C19
A6 (G21). Ford Quarry Expose fossils Interpretation	NE BGS	5k	South Hylton, Sunderland	Upper part of quarry faces still accessible. The reef crest has formerly yielded reasonably abundant specimens. Situated at back of school playing field behind housing. SSSI	2013-2014	A19,B1,B3,C7,C9
A7 (HE2) Heritage at Risk	LLP	Various		1. HAR Register that is updated annually 2. Support action with grand aid 3. Engage LAs to maintain traditional road features 4. Conserve and find new uses for 'at risk' buildings. Restoer one building eg Old Hetton Smithy/ Old Cassop Carlshed	2011-13	Links with individual sites via bio/geo/communities and access

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A8 (HE3) Hastings Hill	SCC/Lambton Estates/ EH	£35k +	Hastings Hill, Sunderland	Major prehistoric landscape which lies largely under arable fields and likely to suffer plough damage. Access with interpretation is needed with viewing platform to tie-in with SCC Barnes Park footpath extension. Surveys and evaluation excavation necessary to confirm condition of buried archaeological remains. Possible removal of land from arable cultivation	2011-20	SCC Access/ Biodiversity
A9 (HE4) The Hidden Prehistoric	AASDN	£20k	Area wide	Survey and evaluation of hill top barrows, cave sites, Palaeolithic deposits with local history societies support.	2011-13	Bio/geodiversity at sites
A10 (HE6) Redworth; Shackleton Iron Age Hill Fort	Redworth Hall	£55k	Redworth, Darlington	Shackleton Beacon is one of only two definitive Iron- age hillforts between Tyne and Tees. Work needed would be detailed survey, evaluation excavation, negotiate access, conservation of buildings and possible removal of trees to achieve preservation	2011-20	Access, A9

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A11 (HE10) Old Cassop & Cassop Vale	DEFRA/Landowner	£22.5k plus building	Cassop	Restoration of hedgerows and traditional farm buildings through HLS, restoration of farm shed, interpretation to Cassop Vale and provide holistic understanding of the landscape	2011-10	A24, field boundary restoration grants
A12 (HE13) Daldon Tower	DCC	£17k	Daldon	Condition assessment, reduce wall height between tower and road, new interpretation and walking route, reassess Bowes Museum archive	2011-13	A19
A13 (HE17) Westerton Hill: High point and observatory	DCC	£32.5k	Westerton Hill	The observatory is on the highest point on the DMLP and in poor condition. Works involve preparing costed conservation management plan, initiate repair works with internal access, new interpretation. On Permian Way	2011-13	Permian Way, A19
A14 (HE19) Castle Eden Dene –A Gothick Landscape	Nat England	£8k	Castle Eden	Improve existing interpretation and review conservation management plan. Not eligible for HLF funding	2011-13	Bio/geo links

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A15 (HE20) Windlestone Hall & Park	Landowners/DCC	£10k	Windlestone Hall, Rushyford	Ensure any new developments conforms to planning documents, identify ownership and restore gatehouse, secure permissive footpath through park, investigate lake restoration and produce management plan for park. Not eligible for HLF funding	2011-10	A19
A16 (HE27) Penshaw Hill: A celebration of radicalism and worms	National Trust	£41k	Penshaw Hill	Topographic survey to the site to interpret quarry workings, features, radicalism and folklore. Possible opening internal staircase to provide safe viewing platform on open days, redesign lighting scheme for appearance and energy efficiency. On Permian way	2011-3	Permian Way, Biodiversity links
A17 (HE31) Conservation areas	LPAs	£3-5k per appraisal	Area wide	Prepare Conservation Character Area Appraisals for all conservation areas across the LL area	2011-10	



Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A18 (HE32) Informing the future with the past	LPAs	£19k	Area wide	Produce a simple illustrated design guide for the LL area to inform communities, developers and planners to raise the standard of the new build and maintenance of existing traditional buildings. Regard to energy efficiency should also be sought	2011-12	
A19 (H33) Local Stone in Local Buildings P2	BGS	£20k	Area wide	Petrological analysis of dated buildings to identify source, improved published study of building conservation, work with quarries to ensure availability of building stone, expand Tees Valley Arts 'Going Underground' school project	2011-10	Geodiversity – buildings of limestone in the project area
A20 (HE41) Miners Housing and Welfare	LL Team	£20k	Area wide	Undertake study into miners' social housing and welfare buildings and identify best examples to inform future planning and conservation working with Durham Aged Miners HA	2011-10	A19

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A21 (HE42) Lost in sea of rig and furrow	LL Team	£10k	Area wide	Confirm survival and preserve existing Rig and furrow, undertake study to provide a typology and dating guide, work with biodiversity interests to protect ancient rig and furrow	2011-10	Biodiversity
A22 (HE16) St.Mary's Monk Hesledon: A lost church P2	DCC	£18.5k	Monk Hesledon	Condition assessment and conservation management statement for Churchyard, new improved access and interpretation, making safe monuments, possible community archaeological excavation	2011-13	Hart project/ Elwick B10, village atlas
A23 (HE28) A defended land: 19th and 20th Century coastal defences P3	LL team	£7k	Coast	A variety of coastal defences from 19th C and 20th C which require conservation. Provide interpretation leaflet for self guided trail	2012-3	Fulwell acoustic mirror, C16
A24 Field Boundary Project	Durham Hedgerow Partnership	£22,800	Mainly South Tyneside	Third party grants at 75% rate Target DSW at Cleadon, hedges at Cassop, Dawdon, Houghton	2011-13	Cleadon Hills, C17,A31

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A25 Escarpment Ridge - Fishburn	DCC DWT NE	£53,000.00		Restoration, creation and linking together of species rich lowland grassland, wetland and woodland habitats.	2011-13	
A26 Escarpment Ridge – Bishop Middleham	DCC DWT NE	£298,000.00		Restoration, creation and linking together of species rich lowland grassland, wetland and woodland habitats.	2011-13	C11, C14
A27 Escarpment Ridge – Ferryhill	DCC DWT NE	£170,000		Restoration, creation and linking together of species rich lowland grassland, wetland and woodland habitats.	2011-13	B6
A28 Escarpment Spurs	DWT DCC	£515,000.00	Coxhoe - Kelloe	Maintenance, restoration and creation of wetlands and grasslands to provide improved habitat connectivity on a landscape-scale	2011-13	
A29 Central Clays	HLS GT DCC DWT	£276,000	South Hetton	Restoration and creation of wetland, grassland and woodland habitat to provide improved habitat connectivity on a landscape-scale	?	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A30 Dene Diversity		£606,000	Wear Banks, Tunstall Hills, Ryhope Dene, Seaham Hall Dene, Dawdon Dene, Hawthorne Dene, Horden Dene, Ash Gill-Warren House Denes, Whitesides and Blackhills Gill, Castle Eden Dene, Hesledon/Crimdon Denes, Cassop Vale, Thornley	Restoration, creation and increased connectivity of species – rich woodlands and their associated wetland and grassland habitats.	?	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
A31 Cleadon Hills area	ST	£32,000	Cleadon Hills	Grassland Management	2011-13	A24, C17
A32 Cleadon Lea area	South Tyneside	£26,000	Cleadon Hills	Wetland Projects	2011-13	A24, C17
A33 Copt Hill	City of Sunderland, Friends of Copt Hill, T & W museums	£58,000	Copt Hill	Grassland restoration, access, archaeological monitoring and survey	2011-13	B5
A34 Houghton Ridge	City of Sunderland, private landowners, Friends of Hillside Cemetery	£15,400	Houghton	Grassland restoration, access, hedgerow development, survey	2011-13	
A35 Warden Law	City of Sunderland tenants	£7,000	Warden Law	Grassland and wetland restoration, access, survey	2011-13	B5
A36 Ford Quarry	City of Sunderland	£16,800	Ford Quarry	Grassland restoration, access, survey	2011-13	
A37 Fulwell Quarry	City of Sunderland	£16,900	Fulwell Quarry	Grassland restoration, access, survey	2011-13	
A38 Flexi graze project	DWT NT DCC	£60,000	Coastal grazing area	Introduction of grazing to coastal strip using rotational	2011-13	
A39 Land acquisition	DCC CoS STC, HBC	£70,000	Area-wide	Purchase of land to reduce fragmentation	2011-13	

Limestone Landscapes Programme B: Community Engagement						
Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
B1 (G1) Geodiversity Rock Festival for the whole LL area	LLP	3-5k	All	Create an identity Single location or multi-site. Could become annual event (EG Northern Rocks Festival) Links to BAP Early summer	2011	BAP Fest
B2 (G6) Establish a group of operators of working quarries to develop and co-ordinate geodiversity activities	Quarry Operators	?		Inception event and open days Identify areas of potential designation SSSI/LW sites Formalise agreements for group visits Annual geological assessments Links with communities and schools	Projects from 2011 onwards	
B3 (G14) Establish Children's Club	LLP	15k	Area wide	Creation of Children's Club based on North Pennines Rock Detective Club. Possibly located in three locations at school or community venue	2011 onwards	BAP links Quarries Roadshow
B4 (HE8) Anglo-Ecclesiastical Heritage Jarrow – Wearmouth WHS	Various	£18k	Wearmouth –Jarrow WHS	"one monastery in two places: Wearmouth and Jarrow in their landscape Context". Encourage and support community involvement and understanding of the project. Explore opportunities for communities to engage in the WHS bid	2011-13	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
B5 (HE5) Copt Hill & Warden Law: Monumental Prehistoric Landscape features	Friends of Copt Hill/ SCC	£15k +	Copt Hill, Hetton- leHole	Support the ongoing work of FOCH and work with them to widen interests of Warden Law. Broker agreement between SCC and FOCH on land management. Undertake archaeological evaluation at Warden Law to inform management and interpretation, use results to conserve and interpret sites	2011-10	HLS scheme, A33, A35
B6 (HE7) Ferryhill Landscape scale investigation and conservation	LL team	£40k	Ferryhill	A project to investigate the undervalued area of archaeology and historic landscape working community and schools through presentations and guided walks – could use the Village Atlas approach. From survey of selected sites, further detailed investigations in metal detecting, field walking, trial excavations. Ferryhill Carrs and Gap bioand geo-diversity investigation. Wheel Hill Geo-survey and excavations and possible HLS scheme to takeland out of arable farming to preserve archaeological remains	2011-10	HLS scheme,A27



Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
B7 (HE8) Seaham St.Marys and the Headland	Various	£10k	Seaham	Publication on the Christian community at Seaham and further excavations of features	2011-13	C4
B8 (HE11) Garmondsway to Coxhoe; Medieval land use; deserted villages and the passing of industry	DCC Archaeology	£74k	Coxhoe	Interpretation material of the DMV at Garmondsway, Raisby Quarry. Restoration and interpret Kelloe Railway Bank, Lime kilns, Coxhoe Hall. Development of community garden at Coxhoe Hall, conservation of historic landscape. Part consolidation/restoration of lime kilns and investigate economics of bringing back into production lime product	2011-13	Quarry Project
B9 (HE12) Ludworth Tower	Ludworth Com Ass	£24.5k	Ludworth	Survey, assessment of tower and earthworks. Land purchase for archaeological/ecological value, restoration of hedge back	2011-10	A19
B10 (HE15) Village Atlas Programme	LL team	£8k per village	2-3 villages	Reproduce the village atlas format in other areas of the Mag-Lime as per the Northumberland National Park	2012-13	Hart

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
B12 (HE24) Haswell Plough; Engine House and Colliery	LL team	£8k	Haswell Plough	Engine House is a SAM and built from local limestone. Pit disaster here led to every colliery to have 2 shafts per pit. Suggested work includes confirming ownership and on-going maintenance arrangements, improve signage and interpretation	2011	A19
B13 (HE35) Community Archaeological excavations	LL Team	£9k	Area wide	Provide opportunities for excavation and learning techniques in archaeology from field walking to surveying and make projects listed in HE plan and organise 3 training days on investigative and recording methods	2011-12	B6
B14 (HE36) Awareness and adoption	LL Team	£3k pa	Area wide	Give support to communities to adopt a local monument and provide with some degree of care	2011-13	A11
B15 (HE37) The elusive Mesolithic	English Heritage	£15k	Coastal Denes	Survey to identify best preserved pre-historic in-situ deposits adopting Tees Archaeology methodology and provide interpretation	2011-2020	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
B16 (HE39) The immediate past, Family, community and photographic memories	LL Team	£15k	Area wide	Provide advice and facilities to help community groups and individuals digitise images using existing websites	2011-10	C22
B17 (HE40) Memorials	LL Team	£65k	Area wide	Compile list of historic mining and war memorials with condition information and add to HERs and/or LL Heritage at Risk Register for planning protection	2011-10	A20
B18 Mag-Lime Flowers	LL Team	£20k	Area wide	Schools and communities to collect seed and grow on plants for planting out at strategic sites	2011-13	'A' grassland projects
B19 Woodland projects	LL Team, LAs	£34k	Area wide	Establish woodland sites with community input	2011-13	Stage 1 project
B20 parish paths Partnerships	LL Team	£20k	Within DCC	Increased resource within Parish Paths Partnership	2011-13	Stage 1 project
B21 Green exercise	LL Team	£185k	Area wide	Workshop programme to promote healthy lifestyles in the outdoors and physical improvements to the green infrastructure	2011-13	Stage 1 project
B22 Photo Competition	LL Team	£5k	Area wide	Community photo competition	2011	Stage 1 project

Limestone landscapes Programme C: Access and Learning							
Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects	
C1 (G5). Create and maintain stockpile of Marl Slate at Sustainability Centre Cassop Primary School	Cassop School Quarry Operators	15k	Cassop	Opportunity for 'hands on' search for fossil fish in safe and familiar environment	2011-14	School environmental centre. Tarmac quarry	
C2 (G7) Create sensory rock trail Access and interpretation suitable for physically and visually impaired	BGS SCC Quarry operators NE	15k	Various	The rocks of the area have the widest textural variation of any in Britain and variations can be easily distinguished by touch. Also very suitable for children and young people's activities. Excellent 'taster' for geodiversity. Best to be in well visited and 'monitored' area such as	2010-11	BAP, access projects	
C3 (G8) Hendon Beach Investigate designation to ensure conservation.	NE, SCC, DHC		Hendon, Sunderland	Spectacular occurrence of concretionary limestone	2010-2011	DHC	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
<p>C4 (G9) Geodiversity trails</p> <ul style="list-style-type: none"> <li>• Linking geology to the built environment - quarries and building stone</li> <li>• Trail along the reef - extends the length of the area, good viewpoints</li> <li>• Quarry trails + products they produce</li> <li>• Trails along coast - Excellent exposures from Trow Point to Marsden Bay, Seaham and Blackhall Rocks</li> <li>• Town geology e.g. Sunderland and Mowbray Park trail then out to country</li> <li>• Fossil trail with casts/impressions of Permian fossils along the way</li> </ul>	Various	16k	Various	<p>Could lend itself to modern techniques including, mp3 and podcasts. Information could be delivered to mobile phones or iPods etc and linked with GPS. Sonic landscape approach. Traditional methods are still important to reach many people.</p> <p>Self led or as guided walks - e.g. to promote regular programme of healthy walking. Much of the coast is scheduled as a geological</p> <p>See pages 22-25 in geodiversity audit report for further information.</p> <p>SSSI</p>	2011 onwards One trail per year	A1, BAP Site specific links, B8
<p>C5 (G10). Create viewing area accessible to general public without entering quarry operations at one or more active quarries and provide interpretation</p>	LLP	23.5k	Cold-knuckles, Crime Rigg, Thrising-ton, Raisby	<p>Coldknuckles (Quarrington - with archaeological evidence of coal mining nearby), and Crime Rigg (SSSI) have excellent exposures of Yellow Sands beneath Magnesian Limestone. Quarrington has archaeological links to coal mining. Thrisington and Raisby (SSSI) provide good views of Magnesian Limestone, Thrisington has well established biodiversity interest.</p>	2011/2012	C1, C2

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C6 (G15). Outreach Programme <ul style="list-style-type: none"> <li>• Trips to museums</li> <li>• Touring fossil fish</li> <li>• Enhanced Sunderland museum programme</li> </ul>	T&WM	£9K	Area wide	Build on existing work eg South Tyneside Schools	2011 onwards	C5
C7 (G17). Geological book	LLP/BGS	£20-40k	Area wide	Detailed but non-academic book on the geology of Durham Magnesian Limestone	2011-12	
C8 (G19). Claxheugh Rock Interpretation	NE	£10k	Claxheugh	SSSI funding Popular landmark Lime kilns- archeo link	2012-2013	Access, biodiversity projects
C9 (G12) Promote geodiversity through variety of media <ul style="list-style-type: none"> <li>• Road show</li> <li>• Website - bring all together what to see</li> <li>• network of practitioners website</li> </ul> Activity sessions for children and young people to introduce ideas and concepts	All	£2k portable display banners £2k website design £2k annually activity sessions	Area wide	In Tees Valley classes from four schools have visited their local quarry site (including active Hart Quarry) to have a hands on experience of the quarry. They teamed up with a local artist to explore and improve knowledge and understanding of geodiversity, biodiversity and local heritage through a number of exciting creative art forms	2011 onwards	C5
C10 (G20). Hartlepool headland Trail leaflet to explain geodiversity	Tees Valley RIGS	3k	Hartlepool	Leaflet Link with Archaeology information	2012	Durham Heritage Coast

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C11 (G22) Bishop Middleham Quarry Interpretation	DWT	5k	Bishop Middleham	Geodiversity complements biodiversity, provides additional interest for site in winter. Durham County Geological Site	2013-2014	Bio
C12 (G23) Trimdon Grange Quarry Interpretation	DWT	5k	Trimdon	SSSI Funding LNR	2013-2014	Bio
C13 (HE1) The Permian Way	LLP	42k	Area wide	NE-SW long distance footpath developed jointly with bio and geo-diversity aspirations	2011-13	
C14 (HE9) Bishop Middleham; Medieval Bishop's Residence	Bishop Middleham PC	£54.5k	Bishop Middleham	Assessment of palace, deer park and fish ponds, improved access and interpretation on PROW. Interpretation and partial restoration of Park Wall and ponds with sampling	2011-2010	C11, A26
C15 (HE18) Hawthorn Dene and Beacon Hill	DCC Archae.	£30k	Hawthorn Dene	Self guided trail leaflets with interpretation, consolidate lime kiln, maintain snowdrop plantings	2011-13	



Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C16 (HE21) Fulwell: Windmill/ lime kilns/ quarry/ acoustic mirror	SCC	£20k+	Sunderland	LLP can contribute to the masterplan of this urban fringe area. Management plans for the acoustic mirror and lime kilns and undertake consolidation works. Self guided interpretation trail with start/finish at Fulwell Mill, to include Quarry	2011-15	Quarry project
C17 (HE22) Cleadon Hills: Windmill and Water pumping stations	South Tyneside Council	£14.5k	Cleadon	Conservation area with good access and interpretation. Work involves assisting in management plan, secure landmark windmill, update interpretation and use of the windmill for Heritage Skills venue. Also opportunity for motor trail of 19th C pumping stations	2011-10	Training in heritage skills, A24, A31
C18 (HE25) Marsden : Quarrying and limekilns	South Tyneside Council	£50k	Marsden	Conservation, consolidation and access/interpretation project for the lime kilns and associated quarry works, village and rattler railway. Links to NT Souter lighthouse and leas	2011-13	NT Bioprojects on disused quarry and the Leas

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C19 (HE26) Middridge & Shildon. The essence of Limestone Landscapes Railways, quarrying and medieval villages	DCC/ Landowner/ Locomotion	£10k	Middridge	Project linking railway museum, historic railway and quarry. Footpath alongside railway from museum and provide interpretation on historic, bio and geo-diversity. Starting point of Permian Way	2011-13	Permian Way Quarry Projects
C20 (HE29) Popular publications on the NCA's archaeology and heritage	LL team	£65k	Area-wide	Popular but academically sound publications on archaeology and historic landscape, industrial archaeology along with a series of limestone history booklets on outcomes from projects such as the village atlas	2011-2013	Village atlas
C21 (HE30) Interpretation strategy	LL Team	-	Area-wide	Produce style guide to help in quality and legibility of interpretation work	2011	
C22 (HE38) Greater Access to Museum & artefact Collections	LL Team	£15k	Area –wide	Utilise collections in museums to organise Limestone Landscapes exhibition possibly in Seaton Holme and digitise collections through existing website	2011-2013	C6

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C23 The Magnesian Limestone Way	LL team, ROW Officers, LAF	?	Area-wide	Creation of new long distance footpath using existing ROW. Status to be at least recreational trail for inclusion on OS maps	2012-13	Access projects
C24 Biodiversity Interpretation digital audio trails or clips, trail downloads	LL Team	?	Area-wide/ site specific	Use of digital media to interpret the landscape such as downloadable audio or video clips/podcasts etc	2011-13	Links to multi-projects
C25 School interpretation projects for geo/biodiversity interests	LL Team	£5k	Area wide	Educational projects in biodiversity and geodiversity	2011-13	Stage 1 proposals
C26 Food growing co-ops at schools	LL Team	£25k	Area-wide	Food growing project for health, learning and business ideas	2011-13	Stage 1 proposals
C27 Geodiversity trails working with schools	LL Team	£15k	Area-wide	Work with schools to help prepare geo-trails in communities	2011-13	Stage 1 proposals
C28 Local Heritage Toolkit	LL Team	£16k	Area wide	Historic environment project to help produce geotrails in communities	2011-13	Stage 1 proposals
C29 Day schools in Historic Environment	LL Team	£6k	Area-wide	Themed days to learn about heritage	2011-13	Stage 1 proposals

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
C30 Day schools in Geodiversity	LL Team	£20k	Area-wide	Themed days to learn about geodiversity	2011-13	Stage 1 proposals
C30 Day schools in Biodiversity	LL Team	£20k	Area-wide	Themed days to learn about biodiversity	2011-13	Stage 1 proposals

Limestone landscapes Programme D: Training and skills						
Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
D1 (G13). Field based training courses for staff & vols	BGS/ Durham Uni	15k	Area wide	National trust staff and volunteers, coastal rangers, Durham Wildlife Trust . etc	2011-2012	Bio and geosites
D2 (H34) Conservation of traditional buildings, Lime Burning and Lime Mortars	LL Team	£50k	Area wide	Provide 3 training days on conservation maintenance and another for builders and contractors. Consider repairing or rebuilding traditional lime kiln to hold lime burning sessions. Commission a study on the hydraulic qualities of the Magnesian limestone to ensure it would produce a high quality finish	2011-13	B8
D3 Awareness raising/training for tourism and visitor sector	LL Team/ County Durham TOursim Partnership	?	Area wide	Provide training for visitor sector providers (Hotels, B&Bs, pubs etc)	2011-13	
D4 U3A training - taxonomy	U3A /LL team	?	Area wide	Provide training in botanic and fauna taxonomy	2011-13	
D5 Best practice on site management and restoration in the DMLP	DWT/ LL Team	?	Area wide	Provide training in Land Management and restoration for the purposes of wildlife diversity	2011-13	

Project Outline	Lead	Costs	Location	Description	Timescale	Link to Projects
D6 Forest school programme	EWE Centre	100000	Area wide	Training for school teachers and children in forest schools	20011-13	A30
D7 Training days in Heritage skills	HSI /NECT	70000	Area wide	Training in blacksmithing, use of lime, hedgelaying, drystone walls	2011-13	Restoration and consolidation projects
D8 Farmland Bird Initiative	RSPB/NE	10000	Coastal	Training for landowners to boost birdlife on farms	2011	Bio projects
D9 Volunteering in practical conservation Project	LL /RSPB	10000	Area wide	Practical conservation tasks	2011-13	
D10 Prioritised programme to works to conserve key buildings	HSI /LL/ LA	75000	Area wide	Restoration and conservation of key buildings with a training element	2011-13	D7
D11 Learning through the outside classroom	EWE Centre/ Quarry operators	65000	Area wide	Training for school teachers and	2011-13	
D12 Link with Landbased diploma	LANTRA/Houghall College	20000	Area wide	Training for the 14-19 year olds	2011-13	
D13 Geodiversity projects link with Durham University outreach	Durham University	2000	Geological sites	Geological outreach training	2011-13	C2 Geo sites





**Appendix 6: Limestone Landscapes Partnership Terms of Reference  
(Draft)**



**Limestone Landscapes Partnership  
Terms of Reference  
May 2010**

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## Terms of Reference

### 1.0 Introduction

***1.1 The Limestone Landscapes Partnership (hereafter referred to as the Partnership) is the body responsible for coordinating the management of the area in accordance with the vision, aims and objectives of the Partnership defined as the Durham Magnesian Limestone Plateau National Character Area. See Appendix 1 for map of the area.***

1.2 The Partnership has an agreed vision, aims and objectives:

#### **Vision**

***Working together in a landscape-scale Partnership to make a positive difference to quality of life and to the unique environment of the Magnesian Limestone area.***

#### **Aims**

A1 Champion and co-ordinate informed, participative and integrated action on the environment across a broad range of sectors.

A2 Deliver environment-led actions that achieve social and economic benefits.

A3 Work with communities connected to the natural area to help shape a landscape that reflects their needs.

#### **Objectives**

The principal purpose of the partnership is to serve as a forum for local authorities, stakeholders and others acting jointly to

O1. Conserve and enhance the unique biodiversity, geo-diversity, landscape, heritage and cultural assets of the partnership area and strengthen and develop local character and distinctiveness.

O2. Improve access to countryside and natural green-space, and opportunities for healthy 'green exercise' that will improve mental, physical and social well-being.

O3. Raise awareness of the environment of the partnership area as an educational

resource and a source of local pride, creating stronger links between urban and rural areas.

O4. Empower local people to participate in activities and decision-making on the environment.

O5. Improve, promote and use the environment as a stimulus for economic regeneration and sustainable growth.

O6. Support and promote activities that help to mitigate, or adapt to, the impacts of climate change.

O7. Support and complement the work of partners through linking and securing resources and expertise.

1.3 The Partnership will include the wider community by engaging a range of relevant national, regional as well as local interests in the management of the area.

## ***2.0 Roles and Responsibilities of the Partnership***

2.1 to work towards the Partnership vision and develop a management plan.

2.2. to prepare a strategy for the Partnership and prepare and implement policies consistent with Partnership objectives.

2.3 to champion the interests of the Partnership and its communities and promote the identity and value of the area.

2.4 to secure resources required for effective delivery of the work of the Partnership

2.5 to coordinate and facilitate the implementation of the management plan, monitor and review progress in achieving its objectives, policies and work programmes.

2.6 to ensure that partner organisations have regard to the purpose of the Partnership objectives in the exercise and performance of their functions.

2.7 to establish and maintain effective working relationships with relevant bodies at national, regional and local levels where these can contribute to the achievement of the objectives of the Partnership and can contribute to wider understanding and best practice in protected area management and integrated coastal zone management.

2.8 to ensure that the Partnership is managed in accordance with best practice, national policies and guidelines.

2.9 to influence and support the activities of communities and agencies beyond the borders of the Partnership area.

2.10 to respond on regional and national planning issues of strategic importance to the Partnership.

2.11 to advise local authorities and other agencies on the resources required for effective Partnership management and seek additional funds, including external finance, to assist in delivering management activities.

2.13 to agree an annual work programme for the Partnership.

2.14 to establish and agree terms of reference for other management and governance structures that it considers are necessary for the effective performance of its functions such as working groups.

2.15 to prepare and publish an annual report of its activities to be distributed to all interested parties.

2.16 to organise a Partnership Forum (annually or as agreed by the Partnership) to provide an opportunity both for Partnership management area residents, stakeholders and other interested parties to input to the management of the Partnership.

### **3.0 Overall structure of the Partnership**

3.1 There will be 23 voting members of the Partnership and five other seats for Local Authority officers:

Comment [N1]: Non-voting?

1. Bodies with a statutory responsibility for the development and management of the Partnership area;
2. Bodies with a national perspective on the management of the Partnership
3. Individuals and bodies with a local or community perspective on the management of the Partnership
4. Key Stakeholder interests of the Partnership.

3.2 Each of the 23 voting members of the Partnership will have one vote subject to the provision in 5.1.4 regarding Local Authority voting. The chair of the Partnership will have a casting vote.

### **4.0 Composition of the Partnership**

In accordance with the composition of the Partnership set out in paragraphs 3.1 and 3.2 above, the membership of the Partnership will be [as](#) detailed in Tables 1A - 1D.

Table 1A : Bodies with a responsibility for the management of the Limestone Landscapes		
One member	Organisation represented	No. of seats
representative and one lead officer of each of the five local authorities whose area includes part of the Limestone Landscapes		
	City of Sunderland Council	2
	Durham County Council	2
	South Tyneside Borough Council	2
	Hartlepool Borough Council	2
	Darlington Borough Council	2
Total no. of seats		10

Table 1B : Bodies with a national and regional perspective on the management of the Partnership- key statutory agencies		
One representative	Organisation represented	No. of seats
of each of three national or regional organisations		
	Natural England	1
	Environment Agency	1
	English Heritage	1
Total No. of seats		3

Table 1C : Bodies with a local or community perspective on the management of the Partnership		
One representative from each of the organisations stated representing community interest ( <a href="#">the nominated person must not be either</a> an elected member <a href="#">of a principal or parish council and must not</a> work for a statutory organisation in the Partnership area).	Organisation or group represented	No. of Seats
	Area Action Partnerships of County Durham	1
	Bettering the Environment South Tyneside (BEST)	1
	Sunderland City LSP Rep	1
	Greener Darlington Group	1

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	Hartlepool LSP Green group	1
Two 'open seats'	Two seats on the Partnership, elected by the Limestone Landscapes Forum, from community or business interests within the Partnership	(2)
Total No. of seats		5(7)

Table 1D : Key landowners / managers/ delivery partners on the Partnership		
One representative from each organisation representing key landowners/ managers / delivery partners (the nominated person must not be either an elected member of a principal or parish council and must not work for a statutory organisation in the Partnership area)?	Organisation or group represented	No. of seats
	Durham Biodiversity Partnership	1
	Groundwork North East	1
	Durham Heritage Coast	1
	CLA	1
	NFU	1
	Architectural & Archaeological Society of Durham and Northumberland	1
	Woodland Trust	1
	Tees Valley RIGS	1
Total No. of seats		8



## **5.0 Notes on Partnership membership**

### **5.1 Local Authorities**

Local authority representation on the Partnership is subject to the following conditions:

5.1.1 Each local authority should be represented on the Partnership by one elected member of the authority and one lead officer.

5.1.2 All local authorities represented on the Limestone Landscapes Partnership should have regard to the desirability of appointing members of the authority who represent wards/divisions situated within the Partnership.

5.1.3 If more than one officer wishes to attend a Partnership meeting this should be with the prior agreement of the Chair.

5.1.4 Local authority officers attending Partnership meetings do not have the right to vote on issues being decided by the Partnership, except when the member representative of the local authority is not in attendance and he/she has delegated authority to the officer to vote on his/her behalf. In such cases, one local authority officer, with the prior agreement of the Chair, may vote on behalf of the member.

### **5.2 Bodies with a national and regional perspective on the management of the Partnership**

These bodies represented on the Partnership are national organisations with a regional structure. It is up to each such body to appoint one representative to the Partnership. The appointed representative is responsible for disseminating information about the Partnership through their respective organisation.

### **5.3 Bodies with a local or community perspective on the management of the Partnership**

The representation of community interests on the Partnership should be through existing mechanisms where possible. Identified groups will form the most appropriate basis for community representation on the Partnership as listed in table 1C. The principal reason for the selection of these organisations is that they have a broadly based membership having regard to environmental, social and economic issues within the area and collectively cover the majority of the Partnership management area.

### **5.4 Key landowners / managers/ delivery partners on the Partnership**

These bodies represented on the Partnership are key landowners and managers. It is up to each body to appoint one representative to the

Partnership. The appointed representative is responsible for disseminating information about the Partnership through their respective organisation

### **5.5 Open seats on the Partnership**

5.5.1 Appointments to the two 'open seats' on the Partnership will be made by the Partnership Forum

5.5.2 The appointment process will be in accordance with the following procedure:

5.5.3 each appointment to an open seat should be for a period of two year with appointments being made every two years at the Forum

5.5.4 not less then two months prior to the date of the Forum, advertisements should be placed in the local press and on the Limestone Landscapes website inviting nominations for the open seats;

5.5.5 nominations should only be accepted from people at the age of 18 or over who are residents of the Partnership area or operate/ manage a business that is based wholly or largely within the Partnership area.

5.5.6 all nominations must be submitted in writing on nomination papers prepared and circulated by the Partnership and must be received by the Partnership not less than 30 days prior to the date of the Forum;

5.5.7 all nominations should be required to include a personal statement by the candidate giving their reasons for wishing to become a member of the Partnership and an account of the skills and experience that they could bring to the Partnership;

5.5.8 voting papers should be prepared by the Partnership and should include the personal statement of each candidate;

5.5.9 only people at the age of 18 or over and attending the Forum should have the right to vote in the election

5.5.10 a copy of the voting papers and a voting slip should be distributed to all people attending the Forum who are eligible to vote;

5.5.11 voting should be by a secret ballot undertaken during the Forum meeting with each Forum attendee having a single vote;

5.5.12 votes should be counted by the Chair and Vice Chair of the Partnership;

5.5.13 the two candidates with the highest number of votes should be appointed to the Partnership for a period of three (3) years

5.5.14 in the event of a tie for any seat, the Chair of the Partnership should Decide the matter by drawing lots

**Comment [N2]:** WHAT IF THREE CANDIDATES EACH GOT SAY 5 VOTES?

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**Deleted:** have a casting vote.

**Comment [N3]:** IT WOULD SEEM A BIT ONEROUS TO HAVE THE CHAIR DECIDE, HOW COULD S/HE NOT BE ACCUSED OF BIAS?

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### **6.0 Election of Chair and Vice Chairperson**

6.1 The Partnership will elect its own Chair and Vice-chair on an annual basis.

6.2.1 The Chair and Vice-chair will each be an elected member of a local authority.

6.2.2 The Vice-chair will be elected from the Partnership.

Comment [N4]: DON'T FOLLOW THIS; THIS DOES IT MEAN THE CHAIR NEEDN'T BE?

6.3 In the event of neither the chair or vice chair being present at a meeting of the Partnership, a Chair for the meeting will be elected by the Partnership members present.

6.4 The Chair and Vice chair, shall fulfil their duties in a manner that is free from party political bias and influence.

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### 7.0 Membership Accord

All members of the Partnership will be invited to sign a 'Membership Accord', which sets out the basis on which they will be expected to contribute to the work of the Partnership. A copy of the 'Membership Accord' is attached in appendix A.

### 8.0 Partnership Meetings

8.1 23 Partnership members will have voting rights (i.e. those organisations and individuals set out in Tables 1A - 1D above). 12 Partnership members (based on 50% + 1) with voting rights will constitute a quorum.

Comment [N5]: THIS IS HIGH AND MAY PROVE UNWORKABLE; ONE THIRD MIGHT BE BETTER

8.2 Partnership meetings will be held quarterly at venues within the area as available and as far as possible on a rotating basis.

8.3 The public will be able to attend meetings with the prior agreement of the Chair. Notice of the meetings, agendas, papers and minutes will be posted on the Partnership web site, and made available by other means on request for purposes of informing the general public.

Comment [N6]: THIS LOOKS LIKE A RECIPE FOR NOBODY BEING LET IN; SHOULDN'T IT WORK ON AN INCLUSIONARY PRINCIPLE UNLESS THE CHAIR RULES OTHERWISE

8.4 Unless especially urgent because of the nature of the business Agendas and papers for Partnership meetings will be distributed, (normally by e-mail unless requested otherwise by a Partnership member) at least five working days before a meeting.

Comment [N7]: ARE THESE TO BE PUBLICLY AVAILABLE; WHO IS TO TAKE MINUTES AND KEEP MINUTES OF MEETINGS; IS THE LEAD/ADMIN ROLE ROTATING WITH THE MEETING?

8.5 Consultation with the Partnership will decide whether such items are appropriate for inclusion on agendas for Partnership meetings or may be considered in other ways.

Comment [N8]: AGAIN THIS LOOKS EXCLUSIONARY AND NON-TRANSPARENT; UNDERSTANDABLE IF YOU ARE RUNNING AN AIRPORT, FOR EXAMPPLE, BUT ISN'T THIS ABOUT ACCESS, CONSERVATION AND TOURISM; MORE IMPORTANTLY IT SEEMS TO INVITE DECISIONS AND DISCUSSIONS OF THE RECORD WHICH SHOULD NOT BE PART OF ANY GOVERNING DOCUMENT, EVEN IN THE PRIVATE ARENA. I would suggest this sub-paragraph be deleted

### 9.0 Working Groups

9.1 The Partnership Working Groups will provide specialist advice and support in the preparation, implementation and periodic review of the Limestone Landscapes Management Plan and as a response to topical issues concerning Limestone Landscapes and its management. These will be formed on an ad hoc basis with invited representatives as agreed by the Partnership. Representatives may not be persons entitled to vote at Partnership meetings.

9.2 Separate Terms of Reference for each working group may be prepared but the principal function of these working groups will be

- ✓ to facilitate the development of an inclusive and participative approach to the management of the Partnership;
- ✓ to provide a mechanism through which the Partnership and staff unit can actively engage with a wide range of organisations, individuals and interest groups concerned with, or interested in the management of the Partnership;
- ✓ to enable the Partnership and staff unit to access specialist knowledge and expertise that will assist in the development and implementation of the Limestone Landscapes management plan.

Comment [N9]: NOT DEFINED

9.3 Each working group will elect a Chair from amongst its current membership for the life of the group. In the event of the Chair not being present at a meeting, a Chair for the meeting will be elected by the members present.

9.4 If not already a non-voting member of the Partnership the elected Chair of each Working Group will become a non-voting member of the Partnership.

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9.5 Working groups may individually or collectively form specialist sub-groups to develop or implement specific projects and initiatives. It is envisaged that such sub-groups would have a small multi-disciplinary membership and be of a temporary nature.

## **10.0 Limestone Landscapes Forum**

10.1 The Partnership will organise an annual Partnership Forum, which will be open to all, with the primary aims of:

- ✓ providing local people with an opportunity to gain a better understanding of the work of the partnership and to input to the management of the Partnership;
- ✓ raising the profile of the Partnership to a wider audience;
- ✓ providing a showcase for local products, facilities and services;

- ✓ electing people to the two open seats on the Partnership.

10.2. The Forum will be held at a suitable venue within or close to the Partnership.

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### 11.0 Conflict of Interest

Any member of the Partnership (including a non-voting member) who has a personal interest in any item to be discussed at the Partnership meeting shall before that item is discussed declare his or her interest to the Partnership and where that interest is also a prejudicial interest shall leave the meeting during the discussion of that item. Where the interest is not prejudicial the member may not take part in discussions or seek to influence the debate or vote but may remain present for that item.

**Comment [N10]:** e.g. CONFLICT OF INTEREST DOES NOT COVER MANY AREAS WHERE MEMBERS SHOULD NOT VOTE, E.G. WHERE A MEMBER MAY WISH TO PURSUE A COURSE OF ACTION BECAUSE HE OR SHE IS KEEN TO SECURE AN OBJECTIVE FOR REASONS UNCONNECTED WITH LIMESTONE LANDSCAPE ISSUES – there may be no conflict, but it would still be unconscionable to vote

### 12.0 Review of Terms of Reference

These Terms of Reference will be operate from March 2010 to 31<sup>st</sup> January 2013, at which time they will be subject to review by the Partnership.

**Deleted:** conflict of interest from a member of the Partnership should be declared at the beginning of each meeting and, if necessary, the individual be asked to leave the room

Subject to the agreement of all funding partners and a majority of the full partnership, these terms may be reviewed prior to 31 March 2013.

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## **Appendix A**

### *Durham Limestone Landscape Partnership*

#### *Membership Accord/ Partnership Agreement*

As a member of the Limestone Landscapes Partnership, I undertake:

- to promote objectives of the Limestone Landscapes as stated;
- to champion the Partnership's vision for the Limestone Landscapes and its communities, as set out in the Limestone Landscapes Landscape Conservation Action Plan;
- to contribute knowledge, expertise and experience to the work of the Partnership;
- to promote, support and play a full and active part in the work of the Partnership in fulfilling its 'roles and responsibilities' as set out in the Partnership's 'Terms of Reference';
- to assist the Partnership in achieving an independent and apolitical profile in the performance of its functions;
- to attend Partnerships meetings whenever possible and, if I am no longer able to attend meetings on a regular basis, to step down from the Partnership or, with the agreement of the Partnership Chair, to seek another representative from within my organisation to take my seat on the Partnership.

Signed.....

Organisation.....

Job Title.....

Date.....

## Appendix B

### Map of boundary area

#### Durham Magneian Limestone Plateau National Character Area

