



REPORT TO EXECUTIVE

PORTFOLIO AREA: ENVIRONMENT AND INFRASTRUCTURE

Date of Meeting: 15th March 2010

Public

Key Decision: Yes

Recorded in Forward Plan: Yes

Inside Policy Framework

Title: NORTH PENNINES AONB: PLANNING GUIDELINES AND BUILDING DESIGN GUIDE SUPPLEMENTARY PLANNING DOCUMENTS.

Report of: Assistant Director of Economic Development

Report reference: DS.07/10

Summary:

This report sets out the draft text of the above two Supplementary Planning Documents (SPDs), to be approved for public consultation. The SPDs will form part of the Council's Local Development Framework.

Recommendations:

That Executive considers the draft Supplementary Planning Documents and that they are made available for consideration by the Environment and Economy Overview and Scrutiny Panel.

That subject to the consideration of any changes to the draft SPDs, they be referred to Council for consideration prior to public consultation.

Contact Officer: Jillian Hale

Ext: 7191

Note: in compliance with section 100d of the Local Government (Access to Information) Act 1985 the report has been prepared in part from the following papers: Carlisle District Local Plan 2001-2016. The North Pennines AONB Management Plan 2009 - 2014

1. BACKGROUND INFORMATION AND OPTIONS

- 1.1 These documents have been prepared by the North Pennines AONB Partnership with significant input from the Council to a working group. The Partnership is responsible for co-ordinating efforts to conserve and enhance the AONB. The management of AONBs is a statutory function of local authorities under the Countryside and Rights of Way Act (CRoW) (2000).
- 1.2 The SPDs relate to Policy DP9 of the Local Plan, which makes provision for development in the AONB subject to the special characteristics and landscape quality of the area being conserved or enhanced. Natural beauty includes scenic quality, landform, ecology, geology, cultural interests and the historic environment. The SPDs express in detail the provisions of Policy DP9 and how it is to be implemented in practice.
- 1.3 In relation to the Building Design Guide, the SPD is aimed at designers, developers and landowners when preparing their plans, proposals and strategies. Planning officers should also have regard to the extent to which development proposals reflect the guidelines when assessing planning applications.

2. CONSULTATION

- 2.1 Consultation to date in the drafting of the document has taken place through a working group made up of the local authorities within the AONB boundary.
- 2.2 Consultation proposed is to advertise in the local press throughout the area of the AONB, and on all local authority and AONB Partnership websites that the documents are available for consultation; write to statutory consultees, Parish Councils, community groups, AAPs / LSPs etc within the AONB boundary; log and respond to each individual comment and then write to each respondent to notify them that there will be a web-based opportunity to see the responses from a given date. This is the same approach that was taken with the AONB Management Plan which was adopted last March as 'supplementary guidance produced by other organisations' under paragraph 6.3 of PPS12, so we have precedent for this approach.

3. RECOMMENDATIONS

That Executive considers the draft Supplementary Planning Documents and that they are made available for consideration by the Environment and Economy Overview and Scrutiny Panel.

That subject to the consideration of any changes to the draft SPDs, they be referred to Council for consideration prior to public consultation.

4. REASONS FOR RECOMMENDATIONS

To update the guidance for developers and bring in additional guidance under the Local Development Framework.

5. IMPLICATIONS

- Staffing/Resources – Within existing resources of the Local Plans and Conservation Section.
- Financial – Within existing resources of the Local Plans and Conservation Section.
- Legal – – In accordance with the Planning and Compulsory Purchase Act 2004 and associated provisions.
- Corporate – The SPDs in address a number of corporate issues in the provision of Council services.
- Risk Management – Without these SPDs there may remain a lack of clarity on the intention of the policies within the Local Plan.
- Equality and Disability – Equality and disability issues have been taken into account in preparation of these SPDs
- Environmental – Environmental Issues have been covered within the SPDs.
- Crime and Disorder – This is addressed in the Designing out Crime SPD which was adopted in November 2009.
- Impact on Customers – This will provide additional guidance to customers improving the level of service provided by the planning service.

Draft November 2009

North Pennines AONB Building Design Guide



North Pennines Area of Outstanding Natural Beauty and European Geopark



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Aim and Objectives

This document provides guidance on building design in the North Pennines Area of Outstanding Natural Beauty (AONB). It is aimed at all of those who affect the built environment of the AONB: planners, developers, builders and householders.

It is specifically designed to help implement the planning, design and conservation policies relating to the AONB that are contained within the Local Development Frameworks (LDF) of local authorities. It seeks to secure a consistency of approach towards matters of building design and building conservation across the AONB to ensure that planning policies and development control decisions continue to conserve its natural beauty while delivering essential development.

The main objectives of the Guidelines are:

- to ensure that new development conserves and enhances the natural beauty of the North Pennines; and
- to stimulate the highest standards of design, conservation and development.

Scope and Purpose

The principal threat to the character of the area comes less from major development than it does from the piecemeal erosion of distinctiveness that accompanies small-scale change. One of the principal ways in which the natural beauty and special character of the North Pennines can be conserved is through the application of consistent and appropriate design and conservation guidelines that complement the area's designation as a landscape of national importance. This does not mean placing restrictions on development, innovative design or new ideas, but actively promoting essential development that complements the character of the landscape and helps stimulate economic activity whilst increasing the sustainability of communities.

The Guidelines do not deal with the principle of major development proposals or land-use planning matters beyond design and conservation of buildings, as these are subject to the policies of local authorities and of other guidance from the AONB Partnership.

The purpose of this consultation draft of the document, as well as providing comprehensive information on the planning framework, is to provide further building design and conservation guidelines to developers, property owners and the public on a range of issues that threaten the piecemeal erosion of local character in our built heritage and could have a detrimental effect on the AONB landscape.

It is being prepared using information from a range of background documents, including national and regional guidance and external technical documents. Some of the evidence base is taken from the North Pennines AONB Management Plan and also from the AONB Partnership's existing building design guidance documents which it replaces.

How to use this document

This document should be read in conjunction with the relevant policies and Supplementary Planning Documents of Local Development Frameworks. It supersedes and replaces the Agricultural Buildings Design Guide and the AONB design guide on Good Practice in the

Design, Adaptation and Maintenance of Buildings. It should be read in conjunction with the AONB Planning Guidelines (2009 consultation draft).

Much of the guidance in this document relates to works which require planning permission. Some guidance also relates to works that will require building regulations consent or consents under the Planning (Listed Buildings and Conservation Areas) Act [as amended] 1990 etc. Before considering any work concerning or affecting buildings in the AONB you should contact your local planning authority (LPA) to confirm whether planning permission or other consents are required. Contact details are given in Appendix 1. Information on Listed Buildings and Conservation Areas can be found in Appendix 3.

Designers, developers and landowners should have regard to the guidelines when preparing their plans, proposals and strategies. Local authority planning officers should have regard to the extent to which development proposals reflect the guidelines when assessing planning applications.

The consultation process

This document is published as a consultation draft. Comments on the document should be made by 31st January 2010 to:

The North Pennines AONB Partnership,
Weardale Business Centre,
The Old Co-op Building,
1 Martin Street,
Stanhope,
County Durham,
DL13 2UY.

Tel: +44(0)1388 528801

Email: info@northpenninesaonb.org.uk

Adopting this guidance as a Supplementary Planning Document (SPD)

Although the North Pennines AONB Partnership has prepared this document, authorities intending to adopt it as an SPD have to set out details in their LDS to indicate which DPD or saved policy it is supplementing and the timetable for its preparation and adoption. The SPD will likely relate to a policy within the Core Strategy DPD or saved policy from a Local Plan dealing with landscape protection within the AONB, its quality and character. It will be an expression in more detail of what this core policy really means and how it is implemented in practice. Also, prior to adoption, each authority has to demonstrate that they complied with the relevant procedures for the preparation of LDDs. Any consultation carried out needs to be in conformity with their Statement of Community Involvement (SCI).

Adopting this guidance as a Supplementary Planning Guidance (SPG)

As an alternative to adoption as an SPD, local authorities may wish to endorse this document as supplementary guidance produced by another body under the provisions of PPS 12 (6.3)

Supplementary guidance to assist the delivery of development may be prepared by a government agency, Regional Planning Body or a County Council or other body (e.g. AONB committee) where this would provide economies in production and the avoidance of duplication e.g. where the information in it would apply to areas greater than single districts. Such guidance would not be a supplementary planning document. However, if the same disciplines of consultation and sustainability appraisal (where necessary) are applied, such information might, subject to the circumstances of a particular case, be afforded a weight commensurate with that of SPDs in decision making. This may be more likely if the district/borough/city councils to which it is intended to apply endorse the guidance, or if the document is an amplification of RSS policy and it has been prepared by an RPB.

The North Pennines AONB is one of a family of AONBs established in England and Wales under the National Parks and Access to the Countryside Act 1949. Along with National Parks, AONBs are “protected landscapes” formally recognised in statute as representing the finest countryside in England and Wales, where special policies should apply to safeguard, conserve and manage the countryside for the benefit of this and future generations.

There are 40 AONBs covering 18% of England and Wales (35 wholly in England, 4 wholly in Wales and 1 which straddles the border). The North Pennines AONB is in the both the North East and North West Government Office Regions. Other AONBs in the regions are Northumberland Coast, Solway Coast, Forest of Bowland and Arnside and Silverdale. The purposes of designation were restated by the then Countryside Agency in 20011 as follows:

- *The primary purpose of designation is to conserve and enhance natural beauty.*
- *In pursuing the primary purpose of designation, account should be taken of the needs of agriculture, forestry, other rural*

industries and of the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of social and economic development that in themselves conserve and enhance the environment.

- *Recreation is not an objective of designation, but the demand for recreation should be met so far as this is consistent with the conservation of natural beauty and the needs of agriculture, forestry and other uses.*

These purposes have since been endorsed by Natural England.

The statutory definition of natural beauty includes “flora, fauna, geological and physiographic features.” This has been interpreted by the Countryside Agency and successor body as follows. “ ‘Natural Beauty’ is not just an aesthetic concept, and ‘Landscape’ means more than just scenery. The natural beauty of AONBs is partly due to nature, and is partly the product of many centuries of human modification of ‘natural’ features. Landscape encompasses everything – ‘natural’ and human – that

Category V Protected Landscape/ Seascape: a protected area managed mainly for landscape/ seascape conservation and recreation

An area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity.

Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

IUCN, 1994

makes an area distinctive: geology, climate, soils, plants, animals, communities, archaeology, buildings, the people who live in it, past and present, and the perceptions of those who visit it.”

AONBs are therefore lived in, working

Principles for the management of Category V Protected Landscapes

- As part of the family of Category V protected areas, the principles that should guide the management of AONBs include:
- Conserving landscape, biodiversity and cultural values as the central focus of the Category V protected area approach
 - Focussing management at the point of interaction between people and nature
 - Seeing people as stewards of the landscape
 - Undertaking management with and through local people
 - Management based on co-operative approaches
 - A political and economic environment that supports effective management
 - Management of the highest professional standard that is flexible and adaptive
 - Measurement of the success of management in environmental and social terms
- Management Guidelines for IUCN Category V Protected Landscapes/Seascapes, IUCN, 2002**

landscapes whose character has been created and maintained by human activity over the generations and where sustaining their quality will continue to depend on careful stewardship of the land.

The approach of “protected landscapes” has been adopted internationally. AONBs in England and Wales are defined within Category V protected landscapes by the World Conservation Union (IUCN).

Part IV of the Countryside and Rights of Way (CRoW) Act 2000 confirmed the significance

of AONBs, and made it a statutory responsibility for local authorities (or Conservation Boards) to act jointly to produce a Management Plan for any AONB in their area and to review it at intervals not exceeding five years (Section 89 of the Act). This duty has been carried out in all AONBs through the AONB Partnerships, which oversee the designation. The Act also placed a duty on all public bodies and statutory undertakers to have regard for the purpose of designation when carrying out their own functions (Section 85).

The importance of management plans and partnerships to guide action in protected landscapes has been recognised by IUCN in a set of principles recommended in 2002 by the IUCN Commission on National Parks and Protected Areas (CNPPA)

Legislation and National Policies

National planning policy states that AONBs, along with National Parks, have the highest standard of protection in relation to landscape and natural beauty. The conservation of the natural beauty of the landscape and countryside, therefore, should be given great weight in planning policies and development control decisions. National planning policy also makes it clear that major developments should not take place in these designated areas, except in exceptional circumstances which are in the national public interest.

Planning Policy Statements (PPS) and Minerals Policy Statements (MPS), prepared by Government, explain statutory provisions and provide advice and guidance to local authorities and others on planning policy and the operation of the planning system. They also explain the relationship between planning policies and other policies, which have an important bearing on issues of development and land use. They were introduced under the provisions of the Planning and Compulsory Purchase Act 2004, and are gradually replacing the old style Planning Policy Guidance Notes (PPG), some of which are still relevant.

Local authorities take PPS into account in preparing their development plans and making decisions on individual planning applications. The most relevant to building design in the North Pennines AONB are:

- PPS1: Delivering Sustainable Development (2005);
- Draft PPS1 (supplement): Planning and Climate Change (2007);
- PPS7: Sustainable Development in Rural Areas (2004);
- PPS9: Biodiversity and Geological Conservation (2005);
- PPS15: Planning and the Historic Environment (1994);
- PPS16: Archaeology and Planning (1990);
- PPS22: Renewable Energy (2004); and
- Regional and Local Policies.

Regional and Local Policies

The Planning and Compulsory Purchase Act 2004 introduced a new system of development plans that abolished Structure Plans and replaces Regional Planning Guidance (RPG) with Regional Spatial Strategies (RSS). These now inform Local Development Frameworks (LDF), which will eventually replace District Local Plans.

The North East of England Plan Regional Spatial Strategy to 2021 was formally adopted in July 2008. This covers those parts of the AONB lying within the administrative areas of Durham and Northumberland County Councils. The North West of England Plan Regional Spatial Strategy to 2021 was formally adopted in September 2008. This covers those parts of the AONB lying within the administrative areas of Cumbria County Council, Carlisle City Council and Eden District Council.

Local Development Frameworks

Local planning authorities are now in the final phase of either reviewing their local plans or starting to replace them with new Local Development Frameworks (LDF). These can be either Development Plan Documents (DPD), such as core strategies, site allocations and generic development control policies, or Supplementary Planning Documents (SPD) that elaborate upon policies in these documents (or 'saved' policies in existing local plans). The documents being prepared are identified in each council's Local Development Scheme.

During the period in which LDFs are being prepared, policies saved from Local Plans constitute the development plan. There are effectively six District Local Plans covering the AONB together with three Minerals Local Plans and three Waste Local Plans. As LDFs progressively emerge, the situation with regard to saved policies will change. The definitive source of information on the planning policy environment for any individual development will be the local planning authority. Details of saved, emerging and adopted policies are published on their websites. Local Planning Officers can give advice as to which policies will be relevant to a proposal at the time of application.

Supplementary Planning Documents

As SPDs form part of an LDF they are a material consideration in the determination of planning applications and are subject to a statutory process of preparation, community involvement and sustainability appraisal. Although they have statutory status they do not enjoy development plan status, but still need to be consistent with PPS, and be in general conformity with RSS. Also they should be in conformity with, and clearly cross-referenced to, the relevant DPD (or 'saved' local plan) policies they support.

There are a number of existing and emerging SPDS in LDFs covering the AONB and dealing in some degree with design issues. These are listed in Appendix 2. Local planning officers and local authority websites are the best source of up-to date information on the publication and scope of SPDs

The AONB Partnership is also preparing a Planning Guidelines document which is intended to be adopted by authorities as an SPD or endorsed as Supplementary Guidance (see How To Use This Document above) which should be read in conjunction with this document.

The landscape of the North Pennines AONB is very diverse, but it has a strong underlying unity of character as a remote and rural upland where settlements and buildings have a close relationship with both the underlying geology and topography and the wider agricultural and moorland landscapes.

Sensitive building development can reinforce this character by respecting local settlement patterns and building forms, and incorporating local materials and design detailing. Insensitive development can erode local distinctiveness, and the sense of 'unity' in the wider landscape, by introducing discordant elements.

While some buildings styles and construction materials are found across the North Pennines, others are restricted to, or highly characteristic of, particular localities. The way buildings relate to their landscape setting is also heavily influenced by the particularities of 'place'; the nature of the local topography, drainage and microclimate, the pattern of local transport networks, and the unique development history of the area.

The character of the North Pennines landscape has been described in detail in a number of published landscape character assessments. More information on these and where they can be obtained is found at the end of this chapter.

Most built development in the North Pennines is found within the more fertile and sheltered dale and valley landscapes which are described below.

Buildings and settlement in the Landscape

The Allen Valleys

The Allen Valleys are an area of great diversity and complexity, containing a wide range of landscapes within a relatively small area. The lower Allen valley contains wooded gorges; south of the confluence of East and West Allen, in their middle reaches, both valleys widen out significantly to provide settings for Allendale Town and many smaller hamlets. Extensive riparian woodland extends for much of the length of the valley and connects via many subsidiary streams and burns to provide visual links to the more open landscape of the upper valley sides.

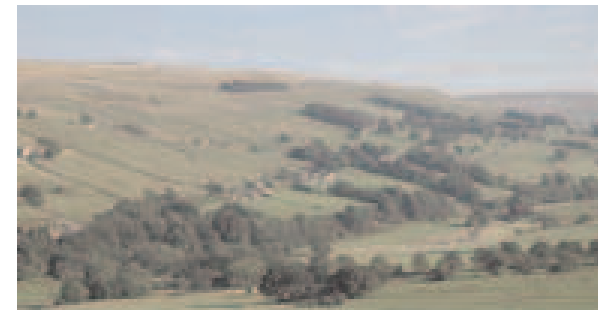
Scattered farmsteads are located at regular intervals particularly in the middle dale area, and are emphasised by shelterbelts and adjacent clumps of Sycamore and Ash. Settlements in the upper dale become less conspicuous with Allenheads village tucked away in a sheltered woodland setting at the narrow valley head.

Both East and West Allendale possess a characteristic profile which is typical of North

- South oriented North Pennine valleys. The effects of glaciation have produced an asymmetric cross section with extensive glacial till on the western slopes creating softer topography and a characteristic drainage pattern; eastern slopes possess thinner soils and convex profiles. The local microclimate also has a significant influence on landscape character with shelter woodland more common on these exposed eastern slopes (where the spread of burn woodland is often more confined by the more sharply incised valleys).

East and West Allendale both supported substantial lead mining industries (even the thinly populated West Allen supported a mining community of over 500 miners). Lead mining is responsible for many current landscape features including coniferous plantations (for mine shoring), reservoirs (for hydraulic power) and above all for the dispersed pattern of smallholdings which were of a sufficient size and density to provide supplementary work and incomes for the miner farmer population.

In common with other parts of the AONB there is evidence of planning by the estate or landowner with recurring detail in field boundaries and woodland features (as well as the use of commonly occurring building patterns). The area around Whitfield is a typical example of estate planning and design enriching a locality.



West Allen Valley, Near Ninebanks

Weardale

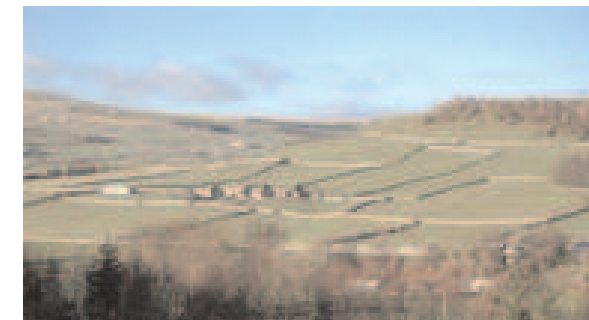
A long valley containing a typical range of dales landscapes, rich in geological variety and industrial heritage, it contains historic landscape features such as field patterns which date back to the prehistoric. The middle dale formed part of the Bishop of Durham's Park and contains several early farm complexes; later development of mining and quarry workers housing add a more utilitarian character (John Wesley commented on the 'innumerable little houses').

The underlying geology of the dale – interbedded hard and soft rocks – is responsible for the stepped profile of much of the valley sides. Many of the highlights of the dale are hidden away in wooded subsidiary valleys which form part of the extensive network of riparian woodland. Mining and quarrying has had a major impact on the landscape of the dale with recolonising spoil heaps and quarries forming a major feature.

In the middle dale villages occur at frequent intervals, appearing at times to form a ribbon of planned development tucked into the

valley floor; enclosure period field patterns and their network of drystone walls dominate the landscape of the valley sides. Small shelterbelts and wooded spoil heaps tend to be oriented along valley slopes and contribute to a moderate level of tree cover. The dale head west of Cowhill is more open and austere with lead mining relics and coniferous plantations forming key features. Scattered caravan sites are common in Weardale, but are relatively inconspicuous owing to their small scale and the dense tree cover.

The Rookhope valley is, in many ways, Weardale in miniature, with the village itself set deep within a narrow valley at the junction between the richly wooded gorge of the lower valley and the open moorland mining landscape of the upper valley.



Weardale

Teesdale

Teesdale contains some of the most varied, interesting and attractive landscapes in the AONB. It encompasses the rich pastoral landscapes of the lower dale (some of which extend beyond the AONB boundary) and at the other extreme the wild, wide open spaces of the upper Teesdale. A long dale with a broad valley floor and gentle side slopes in places, but with limestone and whinstone outcrops providing key features at both high and low levels (including High Force). The middle dale possesses many of the complex patterns of stone walls, pastures and meadows which are so characteristic of many North Pennine valleys.

Land ownership and estate policy has had a marked impact on the landscape with the white farm buildings of the Raby estate providing one of the most striking elements of Teesdale. In many exposed locations, buildings are unprotected by shelter planting or even by the small groups of Sycamore characteristic of other dales - as one approaches the upper dale the absence of trees is particularly marked. The dale head is extensive and open.



White farms in Upper Teesdale

he Derwent Valley

This valley is distinguished from other valleys by several key features differing markedly from the other North Pennine dales. Much of the valley is set at a lower elevation than other dales; the surrounding moorland is also significantly lower. Estate planning and forestry is a key characteristic of much of the valley, particularly in the middle dale; this mainly encompasses the attractive estate landscapes around Blanchland and Hunstansworth which include extensive planted woodland, much of it coniferous in content. The Derwent Reservoir is also a major feature of the middle dale landscape.

Although there are wider vistas and large spaces within the valley, the level of tree cover generally creates an effect of shelter and enclosure in many parts of the dale when compared with other wilder, more remote valleys. The sense of enclosure in the lower dale is even more marked with trees, hedgerows and the bank of the reservoir all contributing to a sense of enclosure and creating a landscape of intimate spaces.

The narrow dale head is relatively well

wooded and inaccessible by car. Lead mining sites also appear in the upper reaches of the valley.



Hunstansworth

South Tyne Valley

A long valley, possessing the asymmetric cross section associated with a north - south orientation and the effects of glacial action. The eastern steep slopes, particularly in the middle dale, are very distinctive with heather and bracken flowing down into the valley itself. Larger scale fields dominate the flatter western slopes. Extensive tree and woodland cover occupies much of the riparian zone, with narrower woodland links flowing up into subsidiary valleys. As one approaches the upper dale the density of farmsteads and smallholdings decreases and rushy allotment land becomes an increasingly common transition at the edge of the moorland.

Lead mining relics such as spoil heaps, adits and mine buildings are a common feature in the upper valley.

In the Nent Valley (a major tributary) lead mining features dominate both Nenthead and its immediate environs. Regularly spaced smallholder's cottages are a key feature – many have been extended far beyond their original modest footprint. Restored riverside spoil heaps are a key feature of the Nent

valley and in time the recent planting will create a richly wooded entrance to Nenthead and the upper valley.



Near Slaggyford, South Tynedale

The Vale of Eden

An area of the AONB landscape which is very different to the other parts of the North Pennines; this is a transitional landscape lying at the foot of the western scarp slopes which possesses a unique climate and distinctive geology. Much of the Vale of Eden was not included in the AONB because it lies outside the North Pennines; the valley fringe which is included within the AONB has strong visual (and also economic) links to the scarp slope above. The scarp provides a dominant background for the string of farms and villages which lie along its base, and is particularly striking when the sun is in the west.

A western climate and rich soils derived from the underlying red sandstone has encouraged the development of rich vegetation and a patchwork of fields of varying size. A network of hedgerows, scattered trees and narrow lanes plus wooded stream valleys form a setting for the string of fell foot farms and villages. The red sandstone is a key component of drystone walls and traditional buildings which echo

the colour of the local soil. The diversity and richness of this landscape offers a total contrast to those who have travelled over the Hartside pass from Alston.

This idyllic image can be deceptive, for the area is famous for its Helm Wind, a severe weather phenomenon, which blows in a

north easterly direction down from the fells; this local challenge is reflected in both the sturdiness and orientation of local buildings and the blocks of coniferous shelterbelts which are dotted around the lower slopes of the scarp.



Near Croglin, Eden Valley

Geology

The special character of the North Pennine landscape has its foundation in the underlying rocks and the geological processes which have shaped it over hundreds of millions of years of Earth history. Tropical seas, deltas, rainforests, molten rock, deserts and ice sheets have all played a part in creating the bare bones of the landscape.

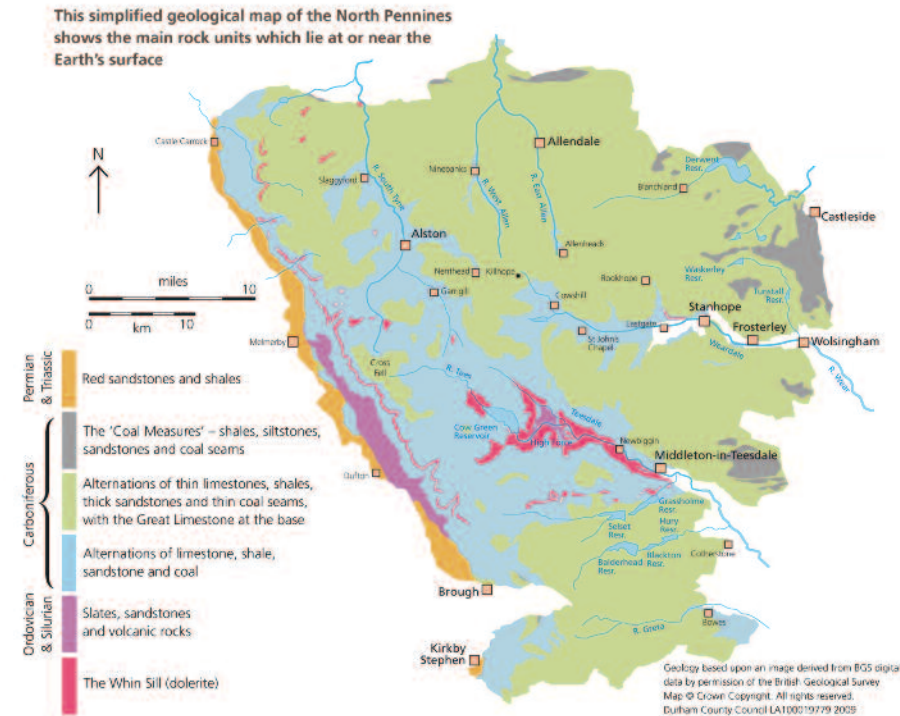
The range of rock types used for building reflects this varied geological foundation. The most common building stones are the Carboniferous sandstones, from which are made most of the dry stone walls and settlements of the North Pennines. Many of the older roofs of the area are made from flaggy Carboniferous sandstone, especially those buildings which date from before the easy transport of slate from Wales and the Lake District.

Limestone is not a common building material over much of the AONB, even in areas where there are major limestone outcrops, such as around Kirkby Stephen and Stainmore, and in parts of Teesdale and Weardale. However, stone walls do reflect underlying geology, be

it limestone, sandstone or clearance stones from glacial deposits.

The younger red sandstones of Permian and Triassic age on the western edge of the AONB give a distinctive character to the villages which nestle along the escarpment foot. The Whin Sill, which is particularly

dramatically exposed in Upper Teesdale, is made of hard, dark dolerite (locally known as whinstone) which is very durable but is difficult to work. It has therefore only been used in buildings close to its outcrop or as blocks in stone walls.



Building materials

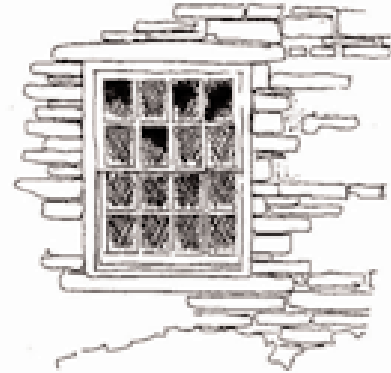
Stone

The visitor to the North Pennines can hardly miss the connection between the locally distinctive character of traditional buildings and the underlying geology of the AONB from which building material was won. The AONB is essentially stone building country; there is very little brick in use until the 20th century and that all brought in from outside the dales. In the past the trouble and cost of transporting stone any great distance was high so local stone was always favoured.

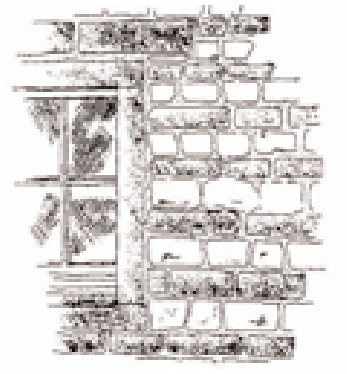
By the mid 19th century there were a great number of quarry enterprises at all levels; estates, individual farms or independent enterprising builders. Often the opening up of a quarry would yield an over-burden of less good quality stone suitable for dry stone walling before the better building beds were reached. Stone would usually be prepared to order and some quarries would only be active when an order required a supply. Today the vast majority of these historic quarries are closed; the smaller ones perhaps even re-colonised by vegetation and long

greened over, the larger ones silent and rather forbidding voids in the landscape recording where a vital industry once flourished.

The organisation of stone quarrying has changed dramatically. First the demand for building stone declined rapidly in the 20th century and at the same time transport and delivery costs became relatively insignificant. Labour and cutting costs however rose and the capital investment in sophisticated cutting and finishing machinery led to the concentration in a few sites of all the processing and sales as larger Quarry companies came to own a portfolio of scattered quarries offering a range of different stones.



Strongly bedded sandstone typical of Allendale and Tynedale



Red sandstone and limestone in the Eden Valley

Lime and sand

Accompanying the need for local stone, builders would also need sand and lime for mortars, plastering and renders. Wherever limestone could be quarried there too limekilns were constructed for burning the stone to produce quick lime slaked to lime putty or bagged for agricultural use. Relatively few kilns were run on commercial lines though the bigger estates may have satisfied the need of a number of tenant farmers from a larger kiln. Sand would have been local pit winning from the dale bed where the material would reflect the geological deposits from upstream.

Roofing materials

Little evidence of its use remains today but heather thatch would have been a predominant cheap and renewable material for roofing the humble cottage before 1800 and probably well into the 19th century. However the availability of splitable strong sandstone over much of the North Pennines allowed a much more durable covering for the better quality buildings from the 17th

century onwards and for quite modest and functional structures right through to the late 19th century. Green Westmorland slate was restricted initially to the Western fringe where it was quarried and to superior houses in the late 18th century through to today further afield. With the advent of the railways the thinner cheaper Welsh slate became everywhere the roof covering of choice and is still dominant on cottage, shop and chapel in the dales villages.



Splitable sandstone roof slates widely used throughout the AONB

Other materials: timber and metals

We probably cannot now identify many strictly 'local' materials other than stone and sands in use in the AONB. As a natural material timber is widely used in vernacular buildings across the area; occasionally, though rarely, as an external cladding material but generally for internal structures. Much of the timber used would have been local until the arrival of the railways. Historically the larger estates established sawmills to convert home-grown broad leaf and coniferous trees to joinery quality and structural timbers. Though some sawmills are converting and seasoning estate-grown timber, most woodland felling is done by contractor and the trees transported in the round to sawmills elsewhere to find their way into the general market for wider distribution. Local craftsmen, the blacksmith and joiner created the metal and timber components of buildings of their day. In the industrial North Pennines where the lead industry required the work of many blacksmiths and other skilled metal workers, their work often survives to this day in the architectural ironmongery of older buildings. This often

bears the unmistakeable and often idiosyncratic character of hand-wrought rather than mass-produced work. In the modern world it has become necessary to consider a wider range and more distant sourcing of building materials and components. The market trend has led to a general dilution of local skills and local distinctiveness across Britain. It is this trend that has spurred a widespread reaction, and a desire to identify criteria for contemporary design in cherished landscapes which will sustain an appropriate response to future needs for development.

Buildings of the AONB

The location of buildings and the form of settlements in the AONB is a legacy of the way the land was used and settled in the past. The earliest form of settlement in the area was in the form of isolated, often defensible, farmsteads. The middle ages saw an expansion in the number of farms as land was enclosed and improved, and the development of 'nuclear' villages, often with linear burgage plots ('tofts' or 'garths') developed around a central green. In the dales these tend to be found in the lower dale. In the Eden Valley they lie close to the foot of the scarp.

As land was enclosed in successive waves of agricultural improvement from the C17th to the C20th more isolated farms were developed to work this newly-won land. Often the farmsteads and walls in the locality will date from the same period and share common materials and construction methods.

The growth of lead mining and stone quarrying on an industrial scale brought new forms of development. Initially this took the

form of existing farmlands being subdivided to support larger numbers of 'miner-smallholders' creating localised clusters of farmsteads. The need for land led to increased pressure for enclosure and the creation of new farms on high ground – often strung out along the old moor-wall or new enclosure roads.

Older villages increased in size with the building of new housing, often in short terrace rows built by mining companies or local entrepreneurs. Linear or 'street' villages grew up, usually along valley bottom transport routes, with houses fronting directly onto the street with only a small cobbled or paved area between the front door and the highway. Most of these new or enlarged villages have an un-planned and idiosyncratic character, having developed in a piecemeal fashion from the merging of smaller isolated groups of houses.

Building types*Houses*

Few houses survive from before 1600 in anything like their original form. The few mediaeval buildings of the AONB are either churches or associated with the church or defence, many structures now ruinous or greatly altered. The oldest house type to survive in any numbers is the Bastle dating from the late 16th century. These are found mainly in the Allendales and South Tynedale though some are located round the north-western fringe and the type extends up into Northumberland and the Borders throughout 'Reiver' country. The Bastle is a defensible thick walled farm building with living accommodation at first floor level over a byre. The idea of upstairs living over livestock was carried on into the 18th and 19th centuries and is reflected still in cottages in Alston and Nenthead where 'downstairs' may have been a workshop or store.

Another house type is commonly found in the Eden Valley and in Teesdale and Weardale: the Long House, with house (one room deep) and byre to one side under a single roof. This

type is even older going back to the 9th century in archaeological evidence. The house door was often in the near end of the byre, though usually moved later to be direct into the house. This type persisted into the 18th century

The lead miners' houses of the 18th and early 19th centuries are another significant type,

integral to the history and character of the AONB. They were built on scattered smallholdings of hay and grazing fields (the allotment) for the most part as tenantry to the large estates amassed by the mine owners. Separated farm buildings were rarely affordable and few remain. Instead animals were housed alongside or behind



Bastle House



A tiny cottage at Nenthead retains 'upstairs living'



Longhouse from the 18th Century; Dufton. The original entrance to the house through the byre has been blocked up and a later door and porch added to the house itself



Another longhouse with its door still in the original position

the house under a continuous roof that sometimes almost reached the ground.

The character of these houses is particularly vulnerable to change through conversion, though many on the higher more exposed slopes of the Allen Valleys and the South Tyne Valley are now too ruined and isolated to revive

In the villages terraces of mining cottages, sometimes single storey on the Scottish pattern, but more commonly two-storey provided the later 19th century accommodation for the peak period of the lead mining industry's labour needs. The seemly repetition of the two or three bay unit with simple sash windows and a frontage straight onto the street may have been varied to a stepped response if the street was steep.

Another very common type of larger house emerging everywhere in the AONB in the late 18th century was the rectangular plan of two or three bays width but two rooms deep. A central door led to a passage between the front rooms and a stairs between the back two rooms. Fireplaces and chimneys were on

the gable walls. More pre-1780's houses of this type survive in Weardale and the Allen Valleys than in Teesdale because of the great re-building of the Raby Estate in the 1750s and 1760s. The Raby buildings are now characterised by that estate's tradition of lime washing external walls.

In the 20th century the widespread adoption of design types from sources outside the region gradually diluted the sense of locally distinctive character. However social housing of the 1920s and 30s, under the influence of architects and planners such as Thomas Sharp, retained the ingredients of type conformity in villages of terraced cottages around greens with gardens behind.



Far Cornriggs, Allenheads. A typical remote leadminer's smallholding



Another miner's smallholding near Killhope



Blencarn, Eden Valley. A two storey three bay farmhouse, two rooms deep: early 19th Century

Farm buildings

The typical traditional farm group is small and compact. The ambitious agricultural improvements of the 18th and 19th century along the arable East coast had little impact on this difficult farming terrain where climate and topography prevented an adequate return on investment. Because farming was small scale and predominantly pastoral certain types of buildings, gin gangs and machine sheds were rarely needed. Only in the more prosperous lower dales would more extensive groups of buildings round fold yards appear.

There are local characteristics: the Cumbrian bank barn with the barn accessible from higher ground at the back and the byre and stables below giving onto the farm yard. There are similar dual purpose buildings in Teesdale with granaries and hay lofts with steps and pitching doors over cart shed and stables. Free-standing field barns are found in Teesdale, the Vale of Eden and even in Weardale where the steep dale sides prompt a variant of the bank barn.

In the 20th century the widespread mass

production of farm sheds in standardised materials (with all the advantages of economies of scale) has, as with housing, significantly diluted the traditional farm building type, and the modern shed being much larger tends to dominate the farm group.



Teesdale field barn



A whitewashed roadside barn on the Raby Estate



Compact farm group

Industrial buildings

The remains of the lead and quarrying industries are not of direct concern here except for such building types as institutes, reading rooms, offices and workshops which sprang up from them. Development by the more successful mining companies such as the Nenthead complex included well constructed vernacular buildings with good quality structural carpentry, masonry, roofing and joinery all worthy of recognition: the fine two storey Barracks at Nenthead housed weekly boarding miners who walked home to their scattered allotments for Sundays.

Churches and Chapels

The Church of England generally confined itself to town and established village centres and was perhaps rather complacent about communities that grew up rapidly round industrial sites. It was the non-conformists, especially the Methodists, who went out into the dales of the North Pennines and built chapels for every small community, sited often on isolated road-sides for ease of access for congregations drawn from widely scattered allotments and terraces. The style of these chapels is unusually plain, nearer the local vernacular with allusions to Gothic or Classical. Many are now redundant and have been converted to houses or offices or hotels.



Converted chapel at Catton

Schools

Privately funded schools are recorded in Weardale in the late 17th century and this was the main source of education for nearly two hundred years. Many new schools were built following the Education Act 1870 and by 1880 there were about 30 schools in Weardale alone, most of which became redundant in the 20th century and have been converted to other uses.

Water mills

As a renewable source of energy water might be staging a come-back today, but historically the water mill was chiefly built for grinding grain for flour and fodder. Many survive in whole or part with traceable water courses and more rarely with machinery. The style was generally vernacular but could be quite large in scale as, for instance that at Stanhope Hall in Weardale.

The large water wheels of lead-mining sites, Nenthead and Killhope were used for crushing the lead-rich ore for smelting and as part of an industrial scene.



Further information

Landscape Character

Countryside Character: Volume 2: North West. naturalengland.org.uk
The North Pennines Landscape (Countryside Commission 1991. CCP 318)
County Durham Landscape Character Assessment. www.durham.org.uk
Cumbria Landscape Classification. www.cumbria.org.uk
Landscape Character Assessment of Tynedale District and Northumberland National Park.
www.northumberland.gov.uk

For anyone contemplating development, the first steps should be to:

- 1 Look at the guidelines in this document, which include pointers to good practice and sources of further information, such as other planning documents within the area covered by the AONB;
- 2 Survey your site or building to assess what features are worth keeping or protecting, and take advice from others with knowledge of design, building conservation, the historic environment and biodiversity as it relates to your proposals; and
- 3 Discuss your proposals with a planning officer at your local planning authority at an early stage in the process: they will give you useful information on issues affecting location and design as well as planning policies and other guidance that may inform your work.

Design Principles

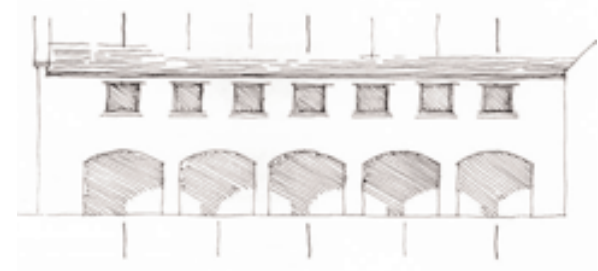
Achieving harmony with neighbouring buildings and the landscape by appropriate siting, massing, scale, proportion, rhythm, materials and landscaping calls for some sensitivity. Each project will need to integrate with its setting by considering these qualities.

- **Siting:** How a building fits into the grain of the landscape in terms of placing and orientation: how in a small settlement a new building should be placed to avoid intruding on a neighbour's privacy or disrupting existing spatial qualities. There will be many practical factors to take into account as well, such as access, orientation, drainage and external spatial function.
- **Massing:** The way the different parts of the development are brought together to achieve a balanced composition with a visual hierarchy. In more complex buildings this will reflect the ordering of spaces into primary and subsidiary functions.
- **Scale:** The human dimension is the constant factor in buildings and is used as the reference point for determining the size of the different elements or spaces of the structure
- **Proportion:** Closely allied to scale in defining the relationship of parts to whole and to each other, solid to void and the arrangement of components to achieve balance and harmony.
- **Rhythm:** The arrangement of constituent parts as a sub-text for the whole: like the satisfactory repetition of a good detail such as the hemmel arch with smaller windows above found in farms across the AONB; the buildings gain their character largely from the interplay of openings and wall.
- **Materials and colour:** Our choice of materials and colour is vastly wider than it was for previous generations. Mindful of their achievements and seeking to integrate our buildings today we may voluntarily restrict our palette to materials which will weather well, marry comfortably with existing materials and not strike harsh contrasts. This does not preclude the choice of modern man-made materials nor deny the possibility of deliberate punctuation



Massing – a visual hierarchy

A house with a history of past extensions, both in line and at the ends and as lean-to at the back including a timber clad log store. All the extensions with the exception of the store are in stone with slate roofs but all remain subsidiary to the original house



with bright complementary colour, particularly in smaller focal areas like doors or outhouse sheds.

- **Landscaping and external features:** Integrating a building into its landscape setting does not necessarily mean elaborate planting or landscaping more suited to the urban park. The composition of the building in relation to its surroundings is often of primary importance. Even in the tighter confines of the settlements in the AONB the hierarchy of buildings, garden outhouses and boundary walls or fences, the open green and the street have a major part to play in the way development fits in with its surroundings. Careful thought needs to be given to boundary features and the front gate to the road or green. The retention of mature landscape features – hedges, walls and trees – and the creation of new ones can help anchor a new building in the landscape.

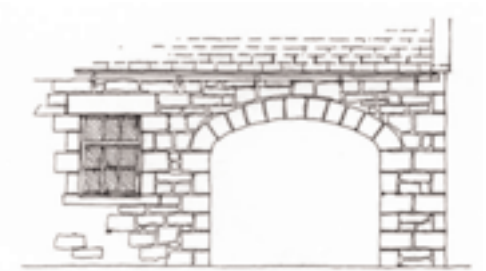
As well as being fit for its purpose a well-designed building should express something coherent about its structure and form. In traditional buildings the structural elements consisted of heavy stone walls punctured by openings for windows and doors: the walls capable of supporting the loads of internal floors and the roof structure. This system was limited by the structural possibilities of timber as grown and the simple rules of carpentry passed down through slow acquired familiarity with joints and fastenings. The size of openings was governed by the simple span of a stone slab for a lintel or could be increased by a more elaborate arch.

Modern technologies and materials create new possibilities. The structural capability of steel and reinforced concrete handled frankly to show what they are extends the vocabulary: so too in certain context will the appropriate use of other architectural metals, plastics and glass.

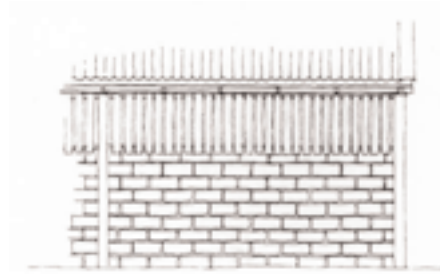
However, there are occasions when the use of a modern material in disguise as another can compromise the design integrity of the building, as for instance, the use of reinforced artificial stone lintels to wide openings which natural stone would never have been strong enough to span.



Note how this farmstead is tied into the landscape by the enclosing field walls, a clump of mature Ash trees and a modulated hierarchy of outbuildings



The size of window and door openings is governed by the strength of the simple stone lintel – or can be increased by the use of an arch



The structural possibilities of the high tensile strengths of timber and steel allow a quite different but equally valid alternative aesthetic



Here a small garage has a simple timber lintel over the door, clearly appropriate use of the inherent properties of timber.

Much the greatest part of the local building industry's activity in the AONB must surely be in minor acts of maintenance and repair to existing buildings. This work can be seen as part of the continuing activity of care for property aimed at preventing deterioration and avoiding more substantial future expense. We have a role as stewards to maintain both the fabric and the character of this building stock and can, by many small acts of intervention, fulfil that role. There is however a danger that by many small acts we can also undermine the valued character of traditional buildings.

Small acts of repair or even replacement described in this section do not require planning permission and are entirely for the decision of the property owner. However in the case of Listed Buildings or of buildings generally in Conservation Areas it will be necessary to obtain Listed Building Consent even for what may seem straight-forward repair or relatively minor alterations. These may include changes of materials, provision for disabled access, replacement of doors or windows, the alteration of the setting of the building or the introduction of external lighting. Although some of this control may seem burdensome it is better at an early stage to consult with planning staff than to find later that work is not lawful. Further information is contained in Appendix 3: Listed Buildings and Conservation Areas.

Re-pointing

Since so much of the stock of traditional buildings in the AONB is natural stone it is worth understanding how best to repair and re-point walls that have become weakened by weathering and loss of mortar. Re-pointing is only necessary when mortar joints have perished and the mortar is breaking down, losing its structural integrity.

Mortar is not glue: its function is to cushion and fill, not to stick. Some very strong cement-based mortars can be used as adhesive but for most purposes these strong mixes are both unnecessary and can seriously damage the long term condition of the stone, particularly with the softer sandstones of the Cumbrian Fellside and Northumbrian Coal measures. When walls get wet the moisture they absorb moves if it can to the mortar joints from where it evaporates. Traditional lime mortars allow maximum breathability and they don't crack as a result of building movement or temperature change. Hard cement-rich mortars tend to trap moisture which through the action of frost and the concentration of

salts accelerates the decay of the stone.

Mortar will normally have a cream or brown colour though in parts of Cumbria the local sand may impart a red/pink colour to the mortar which is entirely appropriate to use with the Red Triassic Sandstones. With the darker impure limestones available in much of the area a pale mortar may set up too much contrast and the careful selection of darker sand mixed with concreting sand may deliver a more muted effect. The preparation of a couple of sample areas using mortar mixes of different sands should help to ensure a good colour and texture to match older work.



Mortar slightly recessed allows the stones to 'read'



A Good pointing finished just behind stone face
B Bad pointing smeared over the face of stones

- It is always better to ensure by the deliberate choice of a mortar weaker than the stone that in the long process of weathering it is the pointing that is sacrificed not the stone.
- Where re-pointing is needed the existing mortar should be raked out using hand tools only to a minimum depth of 30 mm. The prepared joint should then be cleaned with a stiff brush and flushed out with a light spray of water.
- Advice from an architect or building specialist will be helpful in selecting an appropriate mortar mix. In many instances re-pointing using a mortar consisting of 1 part of moderately hydraulic lime to 3 parts of sand or of part cement to 2 parts of hydrated lime putty and 9 parts of sand should prove satisfactory.
- Sometimes a courser sand or light grit aggregate helps to create a texture to match existing mortar. Generally a simple rule is to seek a local source of sand and aggregates for mortars.
- Finishing the joints just behind the stone face allows the stones to "read" and generally produces the best appearance: it is also the least likely to cause long-term damage to the stone. The hard lines of raised "ribbon" pointing serve no purpose of benefit to the stone and have a rather aggressive appearance.
- In very poor random rubble masonry it is difficult to avoid buttering mortar over some areas of face and in some areas this is a traditional preparation for limewashing to make the wall

surface reasonably smooth. For better quality coursed rubble the most pleasing results can be got by pointing the joints flush and then, after the initial set, stippling the surface so that it is slightly recessed and shows some of the course aggregate. In very skilled hands a light spray of water after the initial set is used to expose the clear colour of the sand and course grit.

- Loose surface flakes should be brushed or picked off, since they will fall off in due course anyway, and the wall left in sound (if weathered) condition.
- Individual stones may need to be cut out and a new matching stone built in or a section of stone neatly cut out and a new piece indented. This is work better done by a skilled mason and needs a fair amount of precision.
- It may not be necessary to use new quarry cut stone for the replacement of heavily weathered pieces. Sound stone salvaged from other sources is almost preferable as it will blend in quickly with surrounding surfaces and most local builders will have a stock of stone in their yard.
- Whatever the work it is important to ensure that the repair is done in a stone of the same geological origin and is finished in a way to match adjacent work.

Stone repairs

In some older buildings the face of stonework may have been weathered back in a way that leaves flakes of stone only loosely attached to the wall or individual stones so worn away as to threaten the structural integrity of the wall. Some guidelines are set out in the box to the right.

Render

A fair proportion of traditional domestic buildings in the AONB have a render coat over the structural walling material usually finished with a renewable lime-based paint. Practical experience of combating damp and decay is the common link behind decisions to render a building. Often render is applied to a particularly exposed gable wall leaving other dressed stone walls untouched. Throughout the AONB there is a well-established detail of rendering random rubble stonework in the main wall surface but forming dressed stone window and door surrounds brought slightly forward so that render runs neatly in to the outer edge of these. It is an attractive detail still widely used today.

Early practice in the application of a shelter coat relied upon a lime and sand mix with a capacity to breathe. This would absorb rainwater to saturation point (any surplus tending to run off outside) and then release it by evaporation outward in an even way. A decorative finish of lime wash (slaked lime stirred to a slurry and applied in quite thick

coats) would be refreshed quite frequently: this too was part of the breathing shelter. Occasionally these protective coats have been removed in the interests of showing the stone only to find that dampness becomes a problem again.



Typical rendered walls and painted window surrounds on this terrace at Castle Carrock, Cumbria

- There is a strong case for retaining shelter coats and render and avoiding scraping back to the underlying stonework.
- Where renders are to be replaced a slightly stronger mix may be appropriate but, as with pointing, should not be stronger than the stone – a 1:1:6 (or 1:2:9) cement lime sand.
- Some textured renders are referred to as wet dash or rough cast. This involves the finishing coat mix which contains small pebbles being thrown against the undercoat from a casting or dashing trowel with a flicking action and being padded in for adhesion.
- There are many proprietary renders on the market with a wide range of 'through' colour and texture. Great care is needed in their selection and use as many are inappropriately strong for the softer stones or lightweight blockwork now specified to achieve high levels of thermal insulation.
- The design of the blockwork and render to include movement joints against early shrinkage cracking has to be taken seriously.
- The other problem (which may be a matter of taste) is that the aim of modern practice in rendering is to achieve a perfectly flat even surface with sharp mechanical details at corners and openings with little colour variation. This alone marks modern practice out as different in result from the softer modelling of traditional lime render and the local authority may press the owner of a traditional building to pursue the traditional finish.

Roofs

With the large geographical extent of the AONB and a long historical period covered by surviving buildings it is not surprising to find a wide range of roofing materials used on traditional buildings.

Thick natural stone slabs have survived on many very old buildings throughout the AONB. Sadly production of new slabs is now very limited so the market in salvaged slabs is quite competitively priced.

Westmorland or Cumbrian slate, an attractive grey/green very durable material, is expensive and has always been at the top end of the roofing market. Used for churches, public buildings and grander private houses it is still in production and most roofers will have a stock of sound salvaged slates for repair work.

With the advent of the railways in the mid 19th Century the distribution of Welsh slate came to dominate the market. It remains much the most widespread roofing material in the AONB.

With the growing prosperity of the larger

settlements such as Allendale Town and Alston in the AONB in the 19th and early 20th century many buildings show much great elaboration, with projecting gables with ornate barge boards, bay windows with lead covered roofs, turrets with steep slate roofs crowned with decorative iron finials or moulded terracotta hip terminals. Chimney stacks in stone or brick, sometimes with bold moulded cornices, were finished with a wide range of decorated clay chimneypots, reflecting much wider range of manufactured articles which could be brought in from outside the area.

Farm buildings and smaller community halls and chapels have often been roofed with asbestos cement or metal sheet. This can be visually very pleasing and is part of the character of this inexpensive type of building.



North Pennines sandstone roofing



Westmorland slate: often graded in diminishing courses



Garden Station, Langley. Welsh slate on this attractive group of Edwardian buildings

- Whatever the case may be for repair and maintenance the best course is to replace like for like to achieve a matching invisible mend.
- Pressed concrete or fibre-cement slates are not really suitable for repair work. They probably will not match the older natural slates even to start with, but there is no doubt, even if they do, that the weathering process will affect them in a different way which will become more marked over time.
- Many traditional buildings have stone ridge pieces which, if they are sound, should certainly be retained and rebedded. If these are not available use blue/black clay ridges for slate roofs and half round clay ridges with pantiles.
- Modern fibre-cement profiled sheeting has superseded asbestos and plastic coated metal of an appropriate colour provides an acceptable alternative for farm buildings.
- Chimney stacks and pots are important features and should always be retained or replicated. Their repair and maintenance may require specialist skills and particular materials suitable to the work.

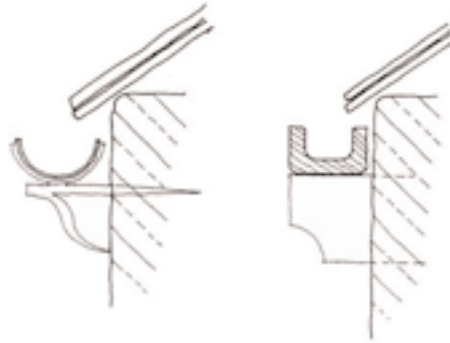


Profiled and coloured sheet material on farm buildings, Upper Teesdale

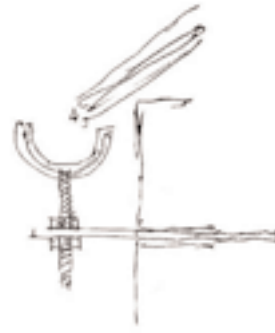
Rainwater Goods

Gutters and downpipes on traditional buildings are usually cast iron, half round or ogee shape, though timber gutters were also popular. Plastic rainwater goods may seem like a cheap alternative but are not robust and frequently buckle following a snow slide off a roof or can be damaged by ladders.

- Gutters are usually fixed by simple rafter straps or decorative spiked brackets made by local blacksmiths.
- Some Victorian and Edwardian buildings have gutters supported by elaborate timber fascias. These traditional features should be retained.
- Modern fascia boards to support gutters are unnecessary, present a continuing maintenance problem and detract from the appearance of a building.



Cast iron gutters traditionally fixed on drive-in brackets direct to the masonry. Wooden gutters were often supported on projecting stone brackets. Neither detail necessitated timber boards at the eaves.



Modern adjustable brackets can be used to provide minimum falls in gutters to outlet.

Windows and Doors

Careful maintenance and regular attention to the paintwork of the timber in windows and doors are essential to ensure long life. While it is true that these components are the most vulnerable part of the external envelope of any building, many original windows and doors can still be found dating back to the 17th and 18th centuries, the result of good detailing and regular maintenance.

For owners considering more radical replacement to windows and doors we recommend reference to the following section of this guidance: Alterations and Extensions.

- The failure of paint not only exposes the wood to wetting but also risks the loss of bond between the putty and the glazing. Care therefore may have to be taken to replace loose putty before repainting.
- Bare wood should be allowed to dry before new putty is applied, the surface primed and brought forward with an undercoat and finish coat.
- More seriously damaged sections and casements may need joinery repair by a skilled tradesman. It is also now possible to have draught-seals fitted to traditional sash and casement windows without affecting their appearance or inhibiting their action.



Oddly proportioned replacement windows give the house a squashed appearance

Painting

Paint, traditionally lime wash as a finish to rendered masonry, is now more usually an exterior masonry paint with improved bond and colourfast characteristics. These have a wide range of soft colours which weather nicely and do not reveal patchy salt stains too obviously. Strong colours such as Ultramarine and Crimson Lake have more pigment and less body and offer less effective cover.

- It is not advisable to paint an old building direct to the stone as a high level of residual salts left by years of evaporation will tend to discolour the paint or contribute to a breakdown in the bond between the paint system and the stone.
- For joinery a distinction seems to be well established between the colours chosen for painting joinery in windows and doors to housing (whites with perhaps bright clean colours for the front door) and the doors and frames of outbuildings, warehouses and farm buildings – usually darker reds, blues and greens, perhaps less likely to show dirt. This distinction should not lightly be ignored.
- Brilliant White can be very harsh and alternative soft whites, creams and soft greys do work well with the honey coloured or red stone of the AONB.
- The use of wood stains for new work is acceptable but will not protect traditional glazing putties. It is usual in this context to use timber glazing beads pinned over an appropriate glazing compound.

The great majority of planning applications submitted to the Planning Authorities in the AONB involves alterations or extensions to houses or proposals for the conversion of redundant buildings to new use. Planning Authorities aim to ensure that alterations and extensions reflect the quality of the original structure, surrounding buildings and setting.

Respecting character

Part of the attraction of the traditional buildings of the North Pennines is their use of local materials and the development of local styles; indeed this is essentially what is meant by the word 'Vernacular'. Even moving from one dale to the next the differences that contribute to a sense of place are apparent.

Until the development of the railway system there was little choice but to use materials available nearby. Vernacular buildings reflect the skills of local tradesmen working habitually on local materials, developing details that worked in response to environmental conditions of the area.

Today of course there is a far wider choice of materials available to the designer and builder and local materials are no longer necessarily the cheapest option or even available any more. As a result the second half of the 20th century has seen a significant erosion of local identity. It is part of the objective of the AONB designation to encourage respect for the locally distinct character of the landscape, including the built environment of the AONB.

Building extensions

Acceptable forms of extension are many and varied recurring over a wide area and long time-span. The key characteristic of almost all successful extensions lies in the respect shown to the original building so that the existing volume or massing of the house remains the dominant form. The examples that follow show that extensions can be built at different periods and yet show the same respect for the character of the original.



The two examples shown above are of two storey houses retaining a clear distinction between dominant and subsidiary parts of the structure and show the importance of the roof form in retaining that hierarchy. Greater difficulties occur when the desired extension is closer in volume to the original building. If space is available it is generally more satisfactory to extend outward to the side or rear rather than attempt an invasion of the front.



The massing of these extensions (above and below) remain subsidiary to the original structure



This two storey extension, partly because of its position and manner, has come to dominate the original house behind

The juxtaposition of a contemporary extension to the main body of an existing building can best be handled by contrasting an extremely lightweight and transparent structure using high quality materials and detailing either for the extension or as a link to a heavyweight masonry component. The transition from old to new allows the form of the original building to be clearly identified and conserved.

Roofs

Although Welsh slates form the dominant roof material throughout the AONB, there are many older buildings roofed with heavy stone slabs or Westmorland slate and some Village Halls and Chapels as well as many farm buildings are roofed with corrugated asbestos cement or profiled metal sheets. The juxtaposition of one against another often makes for interesting interpretation of social and economic status and whether deliberately or by chance adds visual variety within a familiar range of materials.

Many of the recommendations made in the previous section 'Repair and Maintenance' (Roofs) are relevant for alterations and extensions. To achieve a sympathetic relationship between the original building and an alteration or extension often the best course is to use similar material for the roof finish.



A visually light glazed link between two older buildings

Rainwater Goods

Gutters and downpipes on extensions to traditional buildings should usually follow the well-established use of cast-iron products, half round or ogee gutters, and round or square section downpipes with swan-neck and offset connections.

- Gutters are usually fixed by simple rafter straps or decorative spiked brackets made by local blacksmiths.
- Modern fascia boards to support gutters are unnecessary, present a continuing maintenance problem and detract from the appearance of a building.
- Plastic rainwater goods may seem like a cheap alternative but are not robust and frequently buckle following a snow slide off a roof or can be damaged by ladders.
- Aluminium cast or extruded is an alternative material but it is not quite as robust as cast iron.

Dormer Windows

The importance of retaining the original roof form has been mentioned previously. Loft conversions are recognised as a way of creating more space in the home whether in single storey or two storey dwellings. This should be achieved without major external change to the roof form. The insertion of large fat roof box dormers will not be acceptable, but a number of smaller types of dormer could be considered in certain positions. These should be small scale, closely related to the size and position of existing windows. They will tend to be associated



Dormers on the Allendale Inn do not break the main roofline

with fairly steep pitched main roof slopes providing sufficient space in the roof void to make conversion worthwhile.

- The most satisfactory type of dormer window forms a continuation of the wall face rising in stone to a coped gable with a slate pitched roof. These form a coherent elevation with windows matching those below and are usually built with the original development rather than as a later addition.
- Other forms of dormer are placed on the roof slope and are therefore of lighter construction with slate or timber clad side cheeks and gabled or hipped roofs to match the main roof material.
- Flat felted roofs to small dormers are not an acceptable form.

Roof Windows

Roof windows may be a less intrusive way of bringing light into new roof rooms but can still affect the appearance of a dwelling if they are too many or too large.

The position and size of roof windows should be considered carefully to reflect the existing window patterns and to avoid breaking up the main roof plane.



Conservation Rooflight – this is well suited to older buildings due to its low profile within the roof plane



Porches

In the exposed windy climate of the North Pennines it would be natural to expect porches to be a regular element of protection. In fact there is no little strong evidence of this historically outside Weardale and the porch is perhaps more a product of the 20th Century added onto existing houses than it is a contemporary of the original house. In fact it seems that previous generations took a good deal of care to seek shelter from wind and weather by siting houses away from the most exposed quarters. It can sometimes therefore present a problem to design a new porch satisfactorily. One of the difficulties is getting the scale right.

A simple transitional shelter covering the front door can look insignificant and if open fronted can hardly be claimed to achieve any useful purpose. At the other extreme many porches move towards being sun rooms or lobby extensions and become too prominent on the front of the house. Another common problem affects the proportions of the porch where a front door has a first floor window directly above it. This restricts the

height of the porch roof and may influence the design response.

Such examples are not a very good start, but there is a wide variety of robust, pretty or amusing porches as examples of acceptable design in the AONB. Many of these have a stone base with timber framed side windows and front door. The more robust porches are built of stone full height; the prettier porches include some from the late 19th Century with elaborate timber barge boards and finials.



A robust stone porch with a slate roof matching the main roof material and pitch

Even with all this variety there seems to be one common feature of porches that marry well with the main building which is that the roofing material should follow the lead of the main house: slate with slate, tiles with tiles.

- The design of a porch should mirror that of the building.
- The porch must be in proportion to the house.
- The roof pitch and materials must match the main building.



A neat canopy over the door avoids obstruction to the pavement

Conservatories and Sun Rooms

Free standing conservatories and greenhouses as structures within the garden will require careful consideration of siting and orientation in the garden plan to avoid being intrusively conspicuous to neighbours or the public, but the conservatory attached directly to the house present much greater difficulties of design.

Though it might be entirely appropriate for the Victorian and Edwardian villa of Tynedale or for the more substantial farmhouse in the AONB, the larger conservatory will often be too elaborate for the simpler house or cottage even if garden space is available. However there is now a wide range of small to middling size conservatories on the market which have become popular. Most of these are based on a kit of components which can be developed into various forms of lean-to or ridge construction, and are manufactured in a range of materials from which a choice can be made to relate to the location.

In some cases a garden room extension may offer better all year round use if it has an insulated slate or pantiled roof rather than

glass. As the roof would then be a non reflective surface perhaps of the same material as the house roof, the extension would become easier to integrate with the existing building and the glazing of the walls could reflect the domestic fenestration more clearly.



Dwarf walls for a conservatory should be built in the same material as the main house

- The recommendations already set out in relation to extensions apply generally also to conservatory extensions.
- Special consideration must be given to the position of a glass building to avoid damage from heavy falls of snow off higher roofs.
- Upper floor windows should always remain accessible for cleaning and maintenance without having to reach across conservatory glass to do so.
- There will therefore be a practical preference for siting a conservatory at a gable end of a house either as a projecting type or as a lean-to.

Windows and Doors

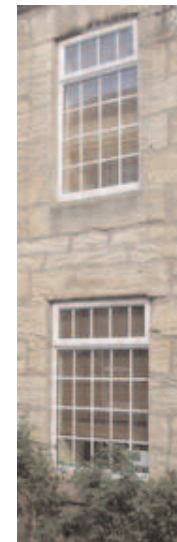
It is the design of windows and doors and the impact of decisions about replacement rather than repair that the greatest change to a building character can be made. Planning Authorities understand many homeowners desire to reduce draughts, improve insulation and save fuel costs.

Although the Building Regulations (Part L Conservation of Fuel and Power) imply that double glazing will become the norm for windows the Regulations specifically recognise the sensitive issue of working on "buildings of architectural and historical interest within National Parks, Areas of Outstanding Natural Beauty and World Heritage Sites". Building Inspectors will take into account the advice of the local planning authority's Conservation Officer particularly where work relates to "restoring the historic character of a building that has been subject to previous inappropriate alterations, e.g. replacement windows, doors and rooflights".

- Avoid using uPVC windows and doors in traditional buildings.
- The balance of argument between timber and uPVC, taken in the round, favours the use of the naturally renewable timber with lower embodied energy and more sustainable sourcing.
- uPVC is claimed to be maintenance free, but over a comparable life span of many existing 18th and 19th century timber windows (i.e. 150 – 200 years) uPVC would be expected to discolour and lose its nature.
- Physical damage to uPVC (break-in or distortion) is not possible to repair; replacement becomes the only option.
- uPVC and metal windows require enormously more energy to produce than timber windows and involve costs of pollution and the disposal of hazardous chemicals.

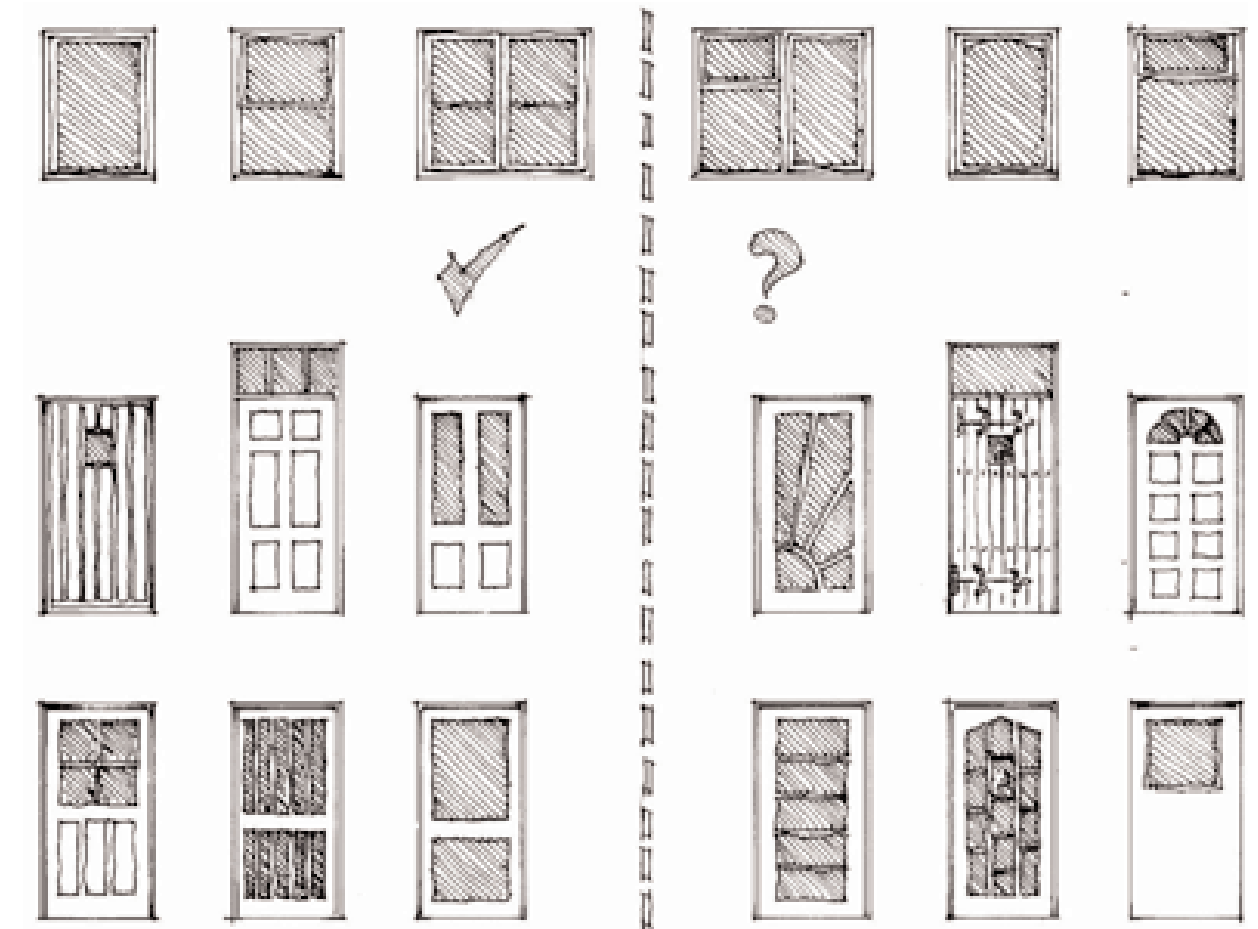


This uPVC door tries to emulate traditional detailing and style but fails miserably. Two different styles of window have been used, the lower one far too wide and with inappropriate 'stick-on' glazing beads.



These uPVC windows are not traditional in style with their top-hung opening lights and their stuck-on glazing beads. They are also set too far forward in the window reveal.

- The aim should be to improve energy efficiency where and to the extent that it is practically possible always provided that the work does not prejudice the character of the historic building.
- It may be less intrusive to introduce secondary glazing in a removable frame inside the window to protect the external appearance, though any subdivision of the secondary glazing will be visible from the outside.
- The biology of an old building is different from a modern structure. The Building Regulations encourage making provision s to enable the fabric of historic buildings to 'breathe' to control moisture and potential long term decay problems.



The design of today's doors and windows should draw from the good examples of the past.

Vehicular Access and Garaging

The position of vehicular and pedestrian access to a house will depend on the site frontage and be subject to advice provided by the County Highway Engineer. Within the site itself the layout of drive and hard-standing will depend on the relationship between garage and house.

- There will generally be a preference for attaching a garage to the dwelling rather than it being a free-standing structure. This will allow direct connection under cover. The same materials and form of construction as the house should be used.
- Where permission is granted for a free-standing garage local planning authorities will require the construction to be in keeping with the surrounding buildings and will normally resist the use of “off the peg” kit structures or flat roofed boxes.

Render

Guidance on the use and care of render and shelter coats is given in the preceding section Repair and Maintenance.

Painting

Guidance on painting is given in the preceding section Repair and Maintenance.

Local planning policies contained in Local Development Framework Documents are broadly supportive of new rural enterprise and applications for change of use and development will be judged against these policies. The following guidance aims to encourage respect for the locally distinct character of the landscape and built environment of the AONB. The planning authorities have a requirement to ensure any alterations brought about by change of use do not detract from the established character of the building or its setting.

The planning authorities may expect an appraisal and record of the form and use of the redundant building before conversion to ensure that significant features and character of the building are understood. This will especially be the case for buildings of architectural and historic merit.

- This appearance and character is best safeguarded by retaining the original use or a closely related function, but where that is no longer possible the proposed conversion should at least retain the original ‘feel’ of the building.
- It is unlikely to be acceptable to make alterations or to extend a traditional barn or byre if in the process its external character is lost in a welter of dormer windows or rooflights, a fussy porch and conservatory or picture windows. These things are not part of the plain functional character of the traditional farm building and if substantial extension or the construction of new outbuildings appear necessary in the first place the view may be taken that the proposed conversion is unsuitably ambitious.
- In addition, the proposed use must be compatible with its surrounding uses and must not generate further development, for instance replacement farm buildings, which would detract from the character of the converted building and its setting. In the case of old farm buildings on an active farm, consideration must also be given to the impact of the continuing farm operation on the amenities of the new conversion.



A simple reticent conversion of a Cumbrian barn using existing openings with little loss of character. The retention of boundary walls and gates helps.



The conversion of the barn on the right of this group has destroyed its character with fussy porch and intrusive windows

Consolidating the fabric

It is quite usual to find the condition of the stonework in redundant buildings somewhat neglected. Repointing and masonry repairs may be necessary to consolidate the structure and make it sound for its new life. Very often the failure of a roof covering will mean that water has entered the wall head and the cycle of wetting and frost can weaken the top courses of stone. At the base of a wall damp can affect mortar and ground levels may need to be adjusted to cover footings. It is unlikely that old farm buildings will have had deep trenches excavated for foundations but many

For guidance on the following aspects of consolidation and repair:

- Repointing
- Stone repairs
- Render
- Roofs and Rainwater goods

see **Repair and Maintenance**

buildings of this type have quite shallow footings of large stones which may need sectional underpinning with concrete. The local planning authority will ask for a Structural Engineer's Condition Survey and Appraisal to confirm the viability of the proposed conversion. This survey will describe the existing structure type, its walls, roof structure and covering, the extent of decay and signs of deformation in floor and roof timbers the movement and cracking of walls and partitions. The Structural Engineer will indicate the extent and nature of remedial work necessary to bring the building into a safe state for its proposed use.



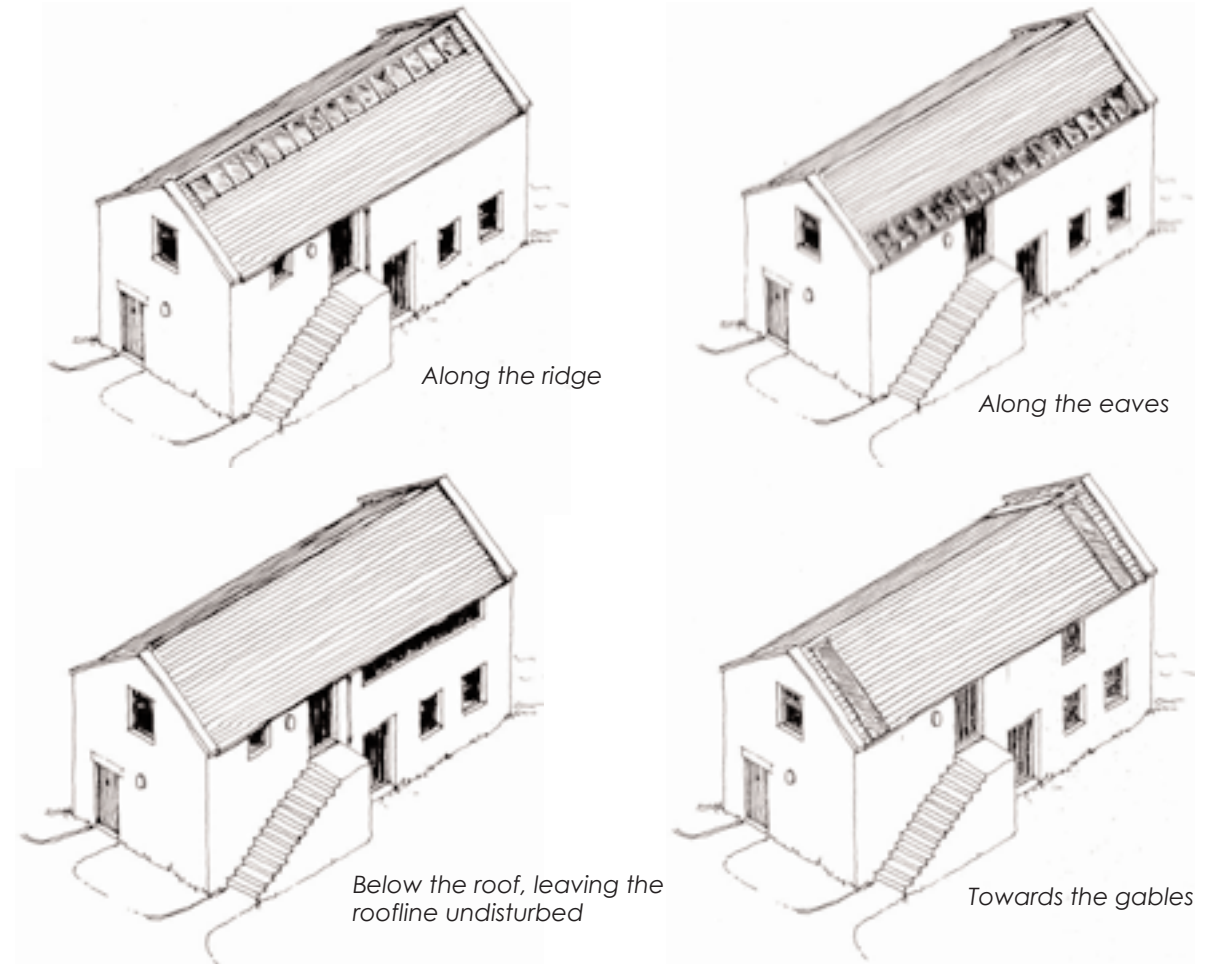
Stained timber windows and door in original openings support the reticent character of this conversion.

Introducing daylight

Barns and other agricultural buildings and old warehouses are usually robust and strong in character, with stone walls, slate or stone slab roofs, simple door and window openings, the windows often associated as much with ventilation as with light.

Fitting an internal upper floor in the traditional barn is often attempted and presents common problems. The roof structure may need to be adapted to avoid obstruction to movement along the upper floor. In such cases it is advisable to have a structural engineer's professional advice to avoid weakening the structure.

The principal difficulty of introducing an upper floor in this way is how to handle the windows that will be required for natural lighting and ventilation.



Alternative ways of handling more extensive rooflighting

- Typically the doors and window frames are painted a dark green, blue or red or are stained black. The developer should try to retain this essential reticence of character in the conversion.
- The existing openings should be used where possible (there are often former openings blocked up which can also be re-opened usefully) and external structural alterations should be kept to a minimum.
- Dormer windows will not be an acceptable introduction to converted farm buildings and if the character of the existing building is not to be seriously affected it will probably be necessary to accept lower standards of lighting.
- Often a small central window in a gable end might be successful and the alteration of the low level ventilator openings to become windows close to the upper floor level will provide a spread of subdued light across the floor.
- The Planning Authorities will however consider seriously bold attempts to bring redundant farm buildings into use for certain types of function which require high levels of natural daylight, by incorporating long strips of glass along ridge or eaves, a glazed slot just behind a gable or a sympathetic insertion of conservation type rooflights.

Windows

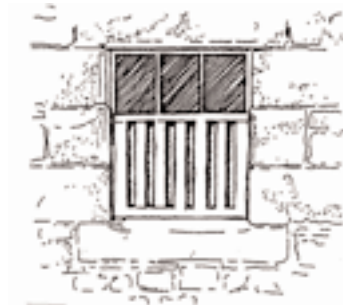
Windows should reflect the character of the redundant building and certain types of window which suit modern housing might be unsuitable in this context. Many farm buildings have glazed lights associated with hit and miss ventilators or inward opening hopper lights above fixed glass. These might serve as models for new timber windows adapting the scale of the sub-division, as the examples that follow. In most of these models the detailing would be finer with single glazing but as we move towards a situation where double glazing becomes the norm for new windows, some thickening of the glazing bars becomes necessary and certainly more acceptable than the fussy (and essentially false) strips of timber or worse still of diamond leaded lights. In historic buildings multi pane windows will need to be single glazed to retain traditional slim glazing bars.



Retain existing openings with simple new components



Above, traditional single glazing detail and below, an acceptable solution for double glazing

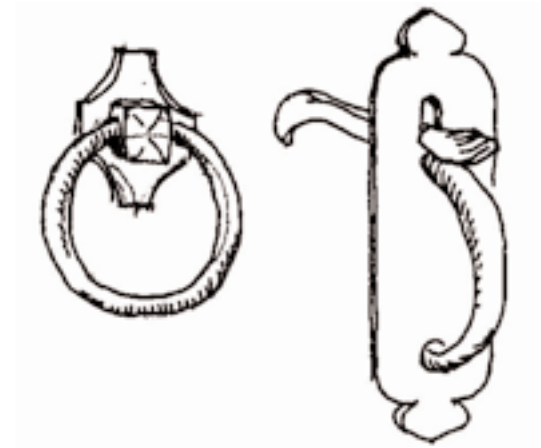


Left, traditional single glazing detail and right, acceptable solution for double glazing

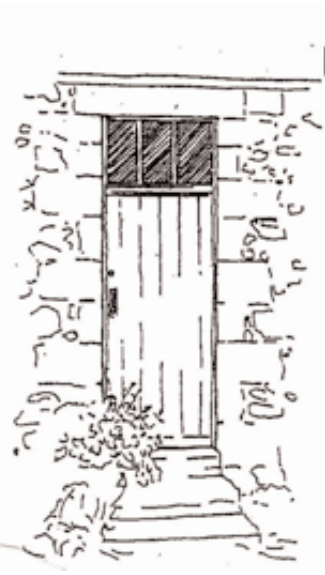
- It is expensive and unnecessary to hack away at existing openings to make them the right size for standard off the peg windows when the new windows can be purpose made at less expense to suit existing opening sizes.
- In some cases plain uninterrupted glazing is appropriate, particularly where the frame is painted or stained dark because this gives an unfussy reading of the original opening.
- Windows frames in barn and warehouse conversions should be decorated in darker colours to reflect the original of the building. In this respect it is essential to record the existing colours of the barn and adjacent buildings.

Doors

Existing doors are unlikely to be sufficiently weather tight to be retained unchanged. Often the door leaf is hung direct with strap hinge and hook to the stone rebated surround, with a ring handle or robust thumb latch and bolts.



- Don't throw away old ironmongery. Details like this are clues to the past and part of a building's character.
- In most conversions the door will follow the typical boarded pattern of the original doors.
- Though glazing is not common in traditional farm doors a simple glazed opening occupying about a third of the width of the leaf or a glazed overpanel will provide some light to the interior while retaining the character of the building.
- In positions where regular wheelchair use is anticipated it is better to have a long thin glazed panel close the leading edge of the door so that the user can see anyone approaching from the other side.



Screens

Large openings such as hemmel arches and barn doors offer an opportunity for bold division in glazed screens with dark painted or stained timber so that from middle distance the opening reads as more important than the frame.



- Sub-division of the frame looks better if in thirds or fifths rather than half or quartered, so that an entrance door might be central. This feature is derived from the most ancient classical precepts placing a void at the centre not a post or column.
- There is always a problem of safety in large sheets or glass filling openings from floor to lintel – a risk particularly of children running into the unprotected glass. For this reason it is usual to introduce a rail at about 800mm from the floor with toughened glass below the rail.
- The screen in this case should be set back in the inner plane of the wall to show as much depth externally with full modelling with shadow in the arch.



Deeply recessed screens and windows create shadow modelling of this fine three storey warehouse conversion

Chimneys, Flues and Ventilators

The position of chimneys, flues and ventilators will be affected by internal planning in the conversion.

The simple robust character of existing farm buildings and warehouses proposed for conversion should not be diminished by the addition of elements that would have no place in the original. Porches and conservatories do not come into the vocabulary of such buildings but it may be possible to achieve the benefit of a porch/draught lobby by internal sub-division rather than as an extension.

- It may not always be possible to construct a masonry chimney and stack without intruding on the character of the building. In the conversion of barn or warehouse an equal case can be made for an insulated metal flue carried through the roof: this should be black stove enamelled rather than shiny stainless steel.
- In the case of craft or light industry use there may be rather conspicuous ventilation extract cowls or heat exchange plant required for the operation. Where possible the bulky plant should be housed internally or sited on the least visible elevation of the building.
- It is a common feature of barns and cattle byres to have provision for adequate ventilation at eaves and ridge. In many instances it was achieved with attractive cast iron ventilator grilles and special ridge tiles. Because these original features contribute to the character of a building and because ventilation will still be required even if the building is converted to another use it is worth trying to retain them.

Rainwater disposal and waste pipes

The simple character of farm and warehouse buildings is maintained in the details of guttering, typically cast iron half round gutter supported on drive-in brackets direct to the masonry without timber gutter boards.

- Adjustable drive-in brackets are still available and this form and material of guttering is preferred.
- The introduction of timber gutter board and PVC rainwater goods may make the plumber's job initially easier and cheaper, but it is not as robust, is vulnerable to distortion and snow slip and will not last as long.
- PVC gutters in the end become brittle with exposure to UV light.
- If the conversion necessitates the introduction of foul water drainage then all new soil and vent pipes should be incorporated within the building (except where a vent pipe may have to appear at roof level). Only rainwater down-pipes should appear on the outside.

External Areas

In relation to the setting of the newly converted building local planning authorities will seek to ensure that a new dwelling has a satisfactory provision of curtilage, the opportunity for a private garden and adequate car parking. If the proposed use is commercial then the traffic generated by that enterprise and the need for hard-standing and external work areas must be fully identified. In all cases proposals for lighting, paths, boundary walls, fences and planting should be shown in the planning application. Where two or more units are to be created from the converted building common treatment of external spaces is preferable; external sub-division can easily destroy the unity of a building and should be avoided.



The original yard wall defines the curtilage of this barn conversion. Shrubs and creeper have 'domesticated' the building.

Lighting

For most external rural/village purposes a simple drum or brick shape bulkhead light fitting not exceeding 150w output is more appropriate than an elaborate coach light or 'gas lamp' fitting. Many have louvres or cowls which prevent misdirected light. Bracket fittings holding a shielded lamp are also satisfactory.

As increasing emphasis is placed on energy saving the installation of Passive Infra Red (PIR) sensors to control external lighting should be considered to avoid waste

Bats and Birds

All British bat species are given special protection in England by their inclusion in Schedule 2 of the Conservation (Natural Habitats) regulations 1994 and Schedule 5 of the Wildlife and Countryside Act 1981. All wild birds, their nests and eggs are protected by law.

- Surveys to establish the presence of bats and wild birds in existing buildings and to assess the likelihood of the building providing a suitable habitat for them must be undertaken by the developer. The licensed surveyor will also include in a report recommendations for mitigating action to ensure the continued availability of suitable habitat for protected species.
- The local planning authority cannot grant permission for development without being satisfied that protected species are being protected and that mitigating measures are in place. The planning authority or Natural England will advise the developer of the action to be taken in this regard. The conversion of redundant buildings will always entail consideration of protected species.

New building in the AONB should relate to the established character of the area in which it is to be located. However, developments in the building industry of technologies and materials not available to previous generations suggest new opportunities for expression of form. Even the use of well established traditional materials is affected by changes in the processing. Timber, for instance, can be used in a far wider context since it can be engineered to extend its structural use and protected and finished in ways to allow its natural colour or grain to be shown. The palette of new materials might be selectively extended to include large units of glass with structural and thermal properties, metals such as stainless steel and bronze which perform much better in damp conditions than mild steel.

- Good design concerns itself with the fundamental management of spaces, structure and materials.
- It must respond to aspects of setting, orientation, topography and exposure.
- The choice of materials must be appropriate for the purpose of the building as well as having some reference to the distinctive character of the neighbourhood.
- Good design must also consider how to ensure durability, low maintenance and long-term sustainability.



Timber framed home with barn-like roof in profiled sheet and timber cladding

Structural steel, reinforced concrete and engineered timber allow much greater spans for openings in walls or for clear spans over uninterrupted space. If these are used to create larger volumes and openings there will be an effect on the scale and proportion of buildings, for example, the impact of longer shallower roofs of farm sheds. This in turn requires new consideration of lighter weight sheet roofing materials to cover the shallow slopes without leaking.



The structural possibilities of steel and engineered timber are given expression in new forms of building.

How is the development to be integrated?

Whether the proposed development is to be a new farm shed or affordable housing the key to successful integration lies in the careful consideration of the characteristic of the surrounding landscape, the setting of the proposed building, the scale and massing of adjacent buildings and the general range of materials used in them.

It is often helpful to prepare this information in a form of a site analysis plan.

It is now a requirement that applications for planning permission should be supported with a Design and Access Statement.

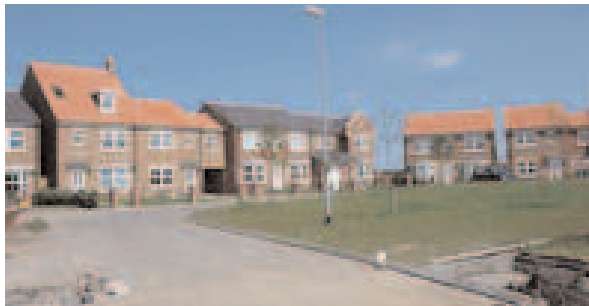
All developers and designers will be expected to demonstrate that they have fully considered:

- Aspects of topography, orientation, drainage, shelter and views into and from the site
- How the surrounding buildings and public space will affect (and be affected by) the development
- How access to the site is to be managed both for pedestrians and for vehicles
- How the development will minimise waste in the preparation of the site for construction

New Housing

There is scope for housing development in many of the villages; the planning authorities want to ensure that growth is used to achieve good quality housing to meet local need and to enhance the rural landscape and natural heritage of the AONB.

Sites available for housing will need to relate to historic land holding patterns. They will often provide the opportunity to complete or extend a traditional arrangement of houses in terraces developed over time along main streets or back lanes confirming the compact layout of settlements in a way that larger developments on village-edge sites have failed to do.



These two developments show no thought to local character

What is new housing to look like?

The mantra 'form follows function' is a useful starting point in building design. However, life for the household does not stand still and over the decades even the functional aspects of a family's need for space will change and the house and its outdoor space will be adapted to suit. Traditional houses, as we have already seen, have a good record of adaptability for successive generations of occupants. New housing should incorporate a similar scope for change.

This approach to house design starts from inside, seeing the design process as a response to the occupants' needs and imagination.



The compact terrace of cottages offers a long-established model with many variations.

New construction should allow scope for future adaptation so that a relatively simple and robust envelope should not preclude the possibility of future extension or internal alteration to accommodate changing needs.

The most consistent characteristic of housing design in the AONB is its simplicity of external form. Whether as free-standing farmhouse, a terrace of cottages or contemporary social housing the basic geometry of walls, windows and roofs is not elaborate. Variations on internal floor planning and the addition in the 20th century of more sheltered outdoor space in the form of the atrium or courtyard house have extended the vocabulary of house design.



An intimate courtward scene retains shelter and the density of the village



Contemporary interior: a freely adaptable space within a simple envelope.

Contemporary housing should generally adopt a simplicity of form even where a range of new requirements occurs and different materials are used.



Social housing in Blanchland



Award-winning high-density housing near Perth

Roofs

The distant view of a settlement or of an isolated clutch of cottages will almost certainly first take account of the roofs of the building. The slope, orientation and choice of materials will create variations in reflection of light and visual impact. There is a predominance in the North Pennines of Welsh slate which is recessive in tone and colour. Modern profiled sheet in fibrous cement or colour-coated metal are more generally used on the shallower pitch of farm buildings but are certainly suitable in subsidiary components of domestic development.

Many roofs now carry plant for renewable energy installations; solar panels and photovoltaics, and there must be careful integration to maintain optimum performance while avoiding a 'stuck-on' appearance.

In certain contexts, though not familiar to us yet in Britain, the Green Roof may be entirely appropriate and well suited to the climate and natural vegetation of the North Pennines. However the design and detailing of green roofs is not widely experienced and the developer may have to research technical information from European countries with greater experience – one of Europe's earliest social housing schemes to have a green roof was in Malmo, Sweden in 1949.



Timber houses can have a natural quality even in areas where they have not been traditionally used.



A 'green roof' house on a sloping site with good views.

Windows and Walls

Traditional windows were limited in size by the structural possibilities of the masonry wall and had painted timber frames with small panes of sheet glass restricted in size by the glass production process of the past. The essential character lay in the sense of the window as a hole in the wall, the frame set back into the thickness of the masonry to protect it from the weather emphasising the shadow of the hole. The walls of older houses were thick enough for a deep embrasure inside too, often providing a window seat with splayed side reveals to admit more daylight.

Today walls are not normally as thick so it may not be possible to achieve both these benefits. This Design Guide aims to encourage emphasis on the sculptural quality of the exterior of the contemporary building with windows cut into the solid form emphasised by shadow. Timber frames can be stained and simple large sheets of double glazing accommodated within this deeper recess. Often the orientation of the main windows of the house will seek to take advantage of the low sun in winter months to

the South elevation and the long evening light of summer in the West. Windows in the North by contrast might reflect the idea of shelter from wind, wet and cold.

Where windows are developed to form a transparent link between indoor and outdoor space the glass becomes the wall and, provided the resultant building envelope complies with standards of thermal efficiency in energy conservation, the concept can add greatly to the introduction of natural light, sunlight and warmth to the interior of the house and the sense of external living space.

In harsh climates, especially with wind-driven rain and snow, the quality of weather-excluding detailing can be critical. Recent publications on the use of timber cladding have demonstrated how it can be successfully used even in exposed upland situations. Detailing of doors, roof edges, windows and dormers all benefit from careful attention to weathering.



Deeply recessed windows are well protected from wind and rain.

New Farm Buildings

Over the last few decades there have been significant changes in farming practices. This has been reflected in the requirements of new farm buildings. Generally, there is now a need for large single span buildings for in-wintering livestock, to enable machinery access and storage and accommodate the bulk storage of feed, silage and waste. A major benefit of such buildings is that they offer greater flexibility of use. At the same time many new standards have been introduced concerning issues such as animal welfare, control of pollution and food hygiene and safety. Many traditional buildings are no longer able to meet these requirements and it is recognised that many farmers are faced with the need to erect new buildings or storage facilities. Whilst the traditional building may no longer be suited to modern agriculture they may, nonetheless, be suited to alternative employment generating uses.

The main purpose of this Guide is to try and balance the functional requirements of modern farm development with their

appearance, and to try and address many of the practical problems faced and suggest ideas that will achieve a good design sympathetic to its surroundings.

Issues to consider include siting, materials (both traditional and modern), construction, ventilation, lighting and landscaping. When considering new agricultural building what is important is not that they should directly imitate earlier styles but that their siting, design and colour, together with landscaping, minimise their impact on the landscape.

Building form

Modern farm buildings generally have large single spans with shallow pitched roofs based around a portal frame construction. This is relatively easy to erect and cost effective. It also enables large numbers of livestock, machinery, crops, forage or feed to be housed under one roof. In many of the more open and prominent or sensitive locations in the AONB, such buildings can have a very significant impact on the landscape and their surroundings.



Integration within or close to existing farmstead can be very difficult even with smaller buildings. Infilling of areas between existing buildings can damage the appearance of the existing farm as well as reducing the full benefit of the new building.

Siting and location

When identifying a new farm building the siting will be influenced most by the requirements the building is to fulfil and the operational need of the farm. The following points should be considered when planning new agricultural buildings:



A large shed in open country can have a significant impact.



Interior of a typical modern farm building showing shallow roof pitch and portal frame construction.

- A new building should be sited so as to enable adequate access for machinery and livestock, ideally based on a circular flow of traffic. If tractors and trailers are required to pass between buildings a 4.5 m gap is recommended plus provision for turning at the ends. Care should be taken though to avoid creating a wind tunnel. Access for service vehicles, such as milk tankers and feed lorries, must also be allowed for. If a new access is required careful consideration should be given to its visual impact.
- The siting of the new building in relation to other buildings on the farm is important. In the case of a livestock building it would be recommended to site it close to feed and straw storage areas which in turn should ideally be sited on the edge of the farmstead to minimise potential fire damage.
- Will the new building require new or additional waste storage facilities? If so these should be considered together. Thought should be given to how the waste is to be removed from the building to the storage area. In the case of a dairy farm it is recommended that waste facilities are located at the opposite end of the main housing to the parlour and dairy. This will ensure that 'dirty' areas are kept well away from 'clean' areas.
- Security is of growing concern to farmers and the Police. When considering a site for a new building it should ideally be within sight and sound of a dwelling and away from a public access point.
- Is the site serviced by existing water and electricity supplies or will new services be required? A new over-ground electrical supply using poles can be very intrusive in the landscape as well as expensive to provide. If new supplies are required consideration must be given to the location of existing supply points and the method of relaying to the new building.

Integration with existing buildings

Most new farm developments will be sited in or around existing buildings which from an appearance point of view is usually desirable. On many farms the main farmhouse will be the dominant feature.

It may not always be acceptable to site a new building in or around an existing farmstead. This maybe for visual impact reasons or for practical farming reasons. For example on hill farms there will be a need to provide remote fodder storage or shelter for grazing livestock in severe weather. Consideration should be given first to the repair or modification and re-use of existing buildings for which grants may be available for modification. However, it is recognised that existing buildings will not always meet the functional requirements discussed earlier.

- In order to help integration with existing buildings, it is preferable to orientate the new building with the main alignment of building on the farm. In most cases these will have been built to reflect the topography and existing landscape setting. In addition to reducing the visual impact by relating roof lines in particular, there are practical benefits as well.
- Groups of buildings arranged in parallel rather than end-on or at right angles should assist with access and the flow of machinery and livestock.
- Care should also be taken so that the siting of new building will not prohibit future expansion.
- It is therefore important that new buildings are well related to the farmhouse. If the farmhouse or any of the adjoining buildings are listed then this requirement is paramount. The new building should not swamp the farmhouse or alter the character or appearance of its immediate setting.
- If possible the new building should be sited on the far side of the farmhouse, as seen from public view points and take advantage of any natural slopes to reduce the apparent scale and visual impact.
- When a large new building is needed on a farm that largely comprises 'traditional' buildings, it is sometimes better to site the new building away from the main group. The impact of the building can be softened by using natural contours in the land by utilising natural screening such as woodlands, trees or mature hedgerows.



A group of buildings, all of which have parallel roof lines which helps to reduce the visual effect.



A stepped construction on a sloping site helps break up an otherwise unbroken roof line.

- Isolated buildings should, where possible, take advantage of natural dips in the land or be set against a hillside to reduce the visual impact.
- Skyline sites or sites prominent from public viewpoints should be avoided.
- Careful siting in relation to existing mature trees will help merge a new building into the landscape.
- Good design should mean that not all new farm buildings need additional landscaping. In no instance though, should trees be used to 'screen' poor design. The emphasis of good design should be on integration with the landscape not on screening the building totally from view.

Coping with the topography

In an area like the North Pennines, the siting of a new building on sloping ground is often unavoidable.

- If used to best advantage, sloping ground can help reduce the scale and impact of large, modern buildings.
- Areas with complex natural landforms like minor valleys or steep bluffs should be avoided.
- Aligning buildings parallel to the contours helps reduce the scale of the development platform.
- 'Cut and fill' techniques should generally be employed to reduce the overall scale of disturbance and the amount of material imported or taken off site.
- Sufficient space should be allowed for access and for blending the earthworks into their surroundings using gradients typical of natural topography in the locality. Steeper slopes can be retained by dry-stone walls or disguised by boundary features.
- If the span of the building is very wide or the slope particularly steep, to avoid excessive excavation and filling, it will be worth considering a multi-span development. Again the stepped appearance and resultant shadow lines created by the eaves, will help break up large expanses of roof cladding.
- For building aligned at right angles to the slope 'cut and fill' techniques can also be used. This option is more expensive than buildings aligned parallel to the slope but might be unavoidable if the site is restricted. When two or more buildings join lengthways and are aligned at right angles to the slope, a 'stepped' construction should be used. This will avoid excessively high gables at one end and break up otherwise continuous lengths of roofline. It should also help ensure more uniform portal frame sizes and therefore be more cost-effective.
- The use of slopes and natural features in the siting of a building can reduce exposure to the weather.
- Earthworks such as cuttings, embankments and mounds should be mown or grazed to prevent an unkempt appearance or planted with locally native trees and shrubs.

Watercourses

Pollution of watercourses by agricultural waste, even where accidental, is a serious offence and can cause enormous damage to the water environment.

When constructing new facilities or enlarging existing ones it is a prior requirement to notify the Environment Agency and also to seek their approval following construction. If a new surface water outfall is to be constructed to a watercourse the full details must be sent to the Environment Agency for comment. Formal consent may be required. Further guidance can be found on the **Code of Good Agricultural Practice for the Protection of Water** published by Defra.

- Any new buildings should be sited carefully to avoid accidental spillage or seepage from entering a watercourse, either directly or through existing drainage systems. Actual distances of buildings away from watercourses will vary according to the type of building, the bedding system used and method of waste disposal. However, the Environment Agency will object to applications for buildings on known areas of flooding.
- Waste by-products such as slurry, dirty yard water, dairy washings, silage liquor, as well as oil and diesel, should be stored carefully in accordance with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991.

Archaeology and historic Features

Not all sites archaeological sites and features are obvious or recorded. Advice on the potential for archaeology to be present on site can be obtained from the archaeology or conservation officers of local planning authorities. Where the archaeologists indicates that there are reasonable grounds for assuming that a site has archaeological potential, local planning authorities will require a developer to arrange for a professional archaeological field evaluation to be carried out before determining the application.

Materials and Construction

Functional Considerations

All new agricultural buildings must comply with British Standard BS 5502. This lays down minimum standard of design and construction and covers issues listed opposite.

BS 5502 relates these issues to buildings for Livestock, Crop Storage and Service Buildings (e.g. Workshops, Dairies and Stores).

Farmers and land agents are urged to check that buildings and materials used comply with the relevant standards. In the AONB due to the relative exposure of sites standards may need to be even higher to meet increased wind and snow load.

Visual Considerations

All new agricultural buildings should be designed to fit in with their surroundings. This requirement is even more important in the AONB where the local planning authorities have a statutory duty to protect and enhance the landscape.

When assessing a planning application or prior notification for a new farm building the planning authority will be looking very carefully at the type, colour and texture of materials as well as their relationship to the surrounding built and natural environment. These items are looked at in more detail in the following sections.

A general principle to try and adopt is visually breaking up the building between the lower and upper wall areas and the roof in order to reduce the impact. In a typical livestock building this can be achieved using a suitably coloured concrete block or stone wall, with stained timber space boarding above and a coloured sheeted profile roof.

Modern Materials

Although the use of traditional local building materials, associated with older buildings in the AONB, would be preferable on visual grounds, cost and functional considerations will, in many cases, restrict their use. There is today, however, an extremely wide range of modern materials with large choices of colours, profiles and textures.

- Timber products can be treated and stained, vastly improving the overall appearance of the building.
- Given the choice of modern materials and colours now available the use of 'natural grey' fibre cement roof cladding or poor quality concrete blocks is unlikely to be acceptable.
- In some locations, painting or rendering masonry walls would be an acceptable treatment.
- In deciding on the type and colour of materials it will be worth looking at the older buildings in the general area of the new building,
- To ensure that the new building integrates well, the colour and texture of materials should complement existing materials as far as possible.

ISSUES

- Siting
- Dimensional co-ordination
- Colours
- Environmental Considerations
- Materials
- Loading
- Fire Protection
- Security
- Energy Services
- Pollution Control

Sensitive Locations

Within the AONB there will be certain 'sensitive' locations where the siting, design and appearance of a new farm building will have to be given considerable attention to avoid an unacceptable impact on its surroundings. Examples of 'sensitive' locations would be sites highly visible from public viewpoints or close to listed buildings, ancient monuments or conservation areas. It is recognised, however, that there may be occasion when, for functional reasons, new buildings will have to be sited in such locations.



Utilise existing walls wherever possible.

- In such situations the LPA will encourage the use of 'traditional' materials (e.g. stone, slate, timber). In the case of smaller buildings the use of such materials will be expected. For larger buildings, the roof in particular, will be difficult to clad in traditional materials, if it is to comply with the relevant standards of design and construction. Similar considerations may also apply to retaining walls. BS 5502 sets out detailed calculations for determining the size of structural members.
- Given the weight of most traditional roofing materials, compared to modern materials, the extra loading resulting from wind and snow and the wide span of most modern farm buildings, the portal frames would need to be extremely large and probably economically prohibitive. In such cases particular regard should be had to the colour and texture of alternative materials.
- In sensitive locations it will be necessary to clad some or all external masonry walls in natural stone. However removal of stone from existing walls or buildings to clad a new building is not desirable. If a smooth internal finish or a load bearing wall is required then an inner leaf can be constructed using concrete blocks.
- The existing walls of redundant or under-utilised buildings can sometimes be used to screen the construction of new building fulfilling the need of modern farming practice. With some repair to the old walls this will enable the new building to blend with the setting and possibly reduce the need for new materials.

Roof Construction in the North Pennines

The roof will always have to be capable of withstanding the extreme additional load placed upon it by wind and snow. To a certain extent, depending on the choice of roof material this will dictate the minimum roof pitch required.



Effective use of shadow and changes of material minimise the impact of this large barn.

- In most modern farm buildings the roof pitch will be 15°. Roof pitch should where practicable be designed to complement the local surroundings, although as a general rule a lower pitch will reduce the impact of the building in the landscape.
- A simple and cost effective way to reduce visual impact and enable a new building to merge with its surrounds is using 'shadow lines'. This is best achieved by an eaves overhang – extending the roof cladding beyond the eaves. This has the effect of apparently reducing the scale of the building and is particularly suited to buildings with high side walls. In exposed locations this form of roof construction may not be appropriate due to the risk of wind damage.

Colour of Materials

Choosing the right colour for cladding materials will be important within the AONB and particularly so where a building will be prominent in the landscape or adjacent to older traditional buildings. Careful thought should therefore be given to choosing the right colour. If traditional materials are to be used then they should complement the character and appearance of existing buildings. With modern materials, the most suitable colours will depend on a particular location.

Within the AONB, traditional colours of buildings often directly complement the surrounding landscape and include greys, browns, yellow-brown and olive green/grey. All of these colours are quite subdued and are dull and matt. Many farm buildings constructed in the 1960's, 70's and 80-'s frequently used 'natural grey' asbestos cement roof cladding. Immediately following construction this looks particularly conspicuous, but then gradually darkens and in shaded areas, lichen growth is promoted which gradually gives a more natural appearance when viewed from a distance.

The more modern successor to asbestos cement, fibre cement, does not seem to weather in quite the same way. Therefore, when modern roofing materials are used, coloured sheeting will be expected.



The dark roof and upper walls of the large shed to the left achieve better integration with the setting than the bright green of the right hand shed even though it is smaller.

In general, materials used should have a low reflectivity and roof colours darker than the walls. Because of the roof angle, more light is reflected and therefore gives a lighter appearance than the actual colour would suggest. A darker roof will also help anew building integrate into its surroundings. Within the AONB the following colours from the British Standard range are suggested:

Roofs	BS 04.C.39	Russet
	BS 08.B.29	Dark Brown
	BS 10.B.27	Mid Brown
	BS 12.B.25	Moss
	BS 12.B.29	Laurel Green
Walls	BS 18.B.29	Slate Blue
	BS 08.B.25	Grey/Brown
	BS 08.D.45	Nutmeg
	BS 10.B.21	Stone
	BS 18.B.21	Grey
	BS 18.B.25	Dark Grey

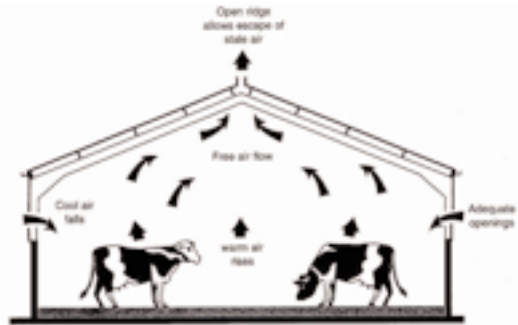
Note: names vary by manufacturer but B.S. numbers are constant.

- Most manufacturers of fibre cement and co-polymer coated steel cladding offer a wide range of colours applied at the factory. Painting on site is not recommended.
- If steel cladding is to be used on livestock buildings this should be coated with co-polymer on both sides to reduce the risk of corrosion caused by high humidity and condensation.
- The use of standard corrugated steel ('tin') roof sheet is unlikely to be accepted in the AONB because of their high reflectivity.

Natural Ventilation

Where livestock are to be housed it is essential that buildings are adequately ventilated. Natural ventilation relies on the wind and the body heat generated by the livestock. Air enters the building below eaves level normally through timber space boarding which then descends as cool air. Depth of timber space boarding will vary depending on livestock requirements, the width of the board used and the width of the gaps between boards. Heat generated by the livestock causes the air to warm and also become more humid. The warm humid air then rises and is drawn through a ridge vent. This 'stack' effect effectively draws in fresh air and discharges stale air. The total air inlet and width of ridge outlet must be calculated carefully to ensure the stack effect works but normally the total inlet area should be twice the outlet area. Inadequate ventilation could result in pneumonia or encourage the spread of airborne diseases amongst livestock. Where multi-span buildings are erected the width of the building will normally be too great for the above method of ventilation to work. To overcome this

problem additional ventilation methods should be employed. When considering the ventilation requirements account must also be given to the influence of external features. These will include the natural topography, surrounding buildings and trees. If the building is too exposed or is in a geographical 'wind tunnel' excessive draughts could result in an unacceptable lowering of internal temperature. Similarly if there is too much shelter (e.g. if sited too close to adjoining buildings) natural ventilation will not work and stale air will build up, increasing the risk of poor animal welfare and disease.



Cross section of byre to show air movement

Possible ventilation solutions could include one of the following:

- If the spans have different roof levels due to sloping ground, sufficient inlet can be built below the eaves for each span.
- Battens can be placed between individual roof sheets so as to raise the roof sheets slightly and enable air to pass up through the corrugations or profile (raised roof ventilation).
- Leave longitudinal gaps between each roof sheet (slotted roof ventilation). Alternatively stained timber boarding can be used on the roof with gaps between each board.

Lighting

It is recognised that for most agricultural buildings adequate natural lighting should be provided. The main exceptions being crop storage or bulk feed storage where exclusion of natural light is normally a requirement.

For buildings where natural lighting is required this is most economically provided using translucent sheets (roof lights). However if, in particularly 'sensitive' locations, this will be unacceptable for visual reasons, then consideration should be given to wholly or partially unobstructed side openings.

For external lighting see Landscape, Planting and External Details.

Planting

As stated previously the emphasis of good building design should be on integrating the building with the landscape not on screening the building totally from view. There will, however, be occasions when tree or shrub planting may be useful in either screening the building in whole or in part, integrating it into the local landscape, or providing shelter on an exposed site. Guidance on planting can be found in the Landscape, Planting and External Detail section.

Other Agricultural Development

Silage clamps

The design and construction of silage clamps must strictly adhere to the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991. Therefore, the scope for selecting different materials and colours is extremely limited. Siting of the clamp should be considered carefully in respect of the surrounding landscape.

- Where possible clamps should be built into sloping ground so that excavated spoil can be used to form screening banks outside the perimeter drainage channels.
- Clamps constructed entirely from earth bank, or simply excavated into the hillside with no properly constructed walls or drainage channels, are not permitted by the above mentioned Regulations.
- The Environment Agency will need to be consulted on proposals and it is essential that silage liquor is properly collected and stored.

Waste storage

Slurry and dirty water storage also comes within the scope of the above Regulations. Manure stores are outside the scope of the Regulations but liquid seepage is considered to be dirty water and therefore should be channelled to suitable storage.

- Most slurry and liquid waste storage is in enamelled steel circular stores. If sited poorly they can be very intrusive in the landscape. Clearly drainage to the store will be a major factor in determining the exact site. However, using natural topography and buildings to best advantage, the visual impact can be significantly reduced. consideration should also be given to additional landscaping such a forming earth banks for screening and, if appropriate in that location, tree planting.
- Most store manufacturers now offer a choice of colours at little extra cost. Farmers and designers are therefore urged to discuss siting and colour choices with the Local Planning Authority and the store supplier early on in the planning process.
- Earth banked lagoons are often used in lowland areas for waste storage. However, in high rainfall areas, such as the North Pennines, they are unlikely to be a practical proposition. The large surface areas and rainfall falling on the lagoon, will significantly increase the waste to be stored and subsequently disposed of.
- Above ground muck middens are a popular way of storing manure on hill farms. They are traditionally constructed of reinforced concrete block walls and may have a sloping floor or a ramp for access. By their very nature they are built for purely functional reasons with limited scope for improving the appearance. However suitable landscaping measure may include stone cladding, painting, rendering or grassed earth banks against the walls.
- As with silage liquor, it is essential that liquid run off is contained and subsequently disposed of without getting into a watercourse or rainwater drainage system.

Outdoor Feed and Grain Bins

Outdoor feed and grain bins are normally constructed from galvanised steel. Due to the high reflectively of this material they can be very conspicuous in their surroundings.

Wherever possible these should be integrated with other buildings rather than in prominent positions as seen from public viewpoints.

Other Structures

In recent years horticultural polytunnels have increasingly been used as lambing shelters, offering low cost, temporary accommodation. However, such structures in the AONB are totally alien to the landscape. Local planning authorities will therefore generally expect alternative, more appropriate low cost buildings such as suitably clad timber pole barns.

There is much delight to be had both by residents and by visitors to the AONB from the robust and careful detailing of the spaces in our settlements and from the way buildings sit within the landscape. A response to slope, view, sun and shelter may generate important decisions about the placing and form of a building and its relationship with the spaces about it. So too a response to the context of the site and the character of the buildings around it will suggest the kind of detailing appropriate for hard surfaces, boundary walls and gates and planting design.

Landform

It is so easy to bring in heavy machinery to a sloping site and level the ground to suit a building designed for a flat site. Never mind the awkward banks at the edges of the cut and the prominent front of the new platform: these can be propped up with heavy retaining walls or smothered with shrubbery planting. But do we need to disturb the natural land form with such heavy earthworks? Our predecessors with less powerful equipment paid more respect to the natural contours of the land and adjusted the building design to take account of them.

The siting of a building may well be constrained by factors other than land form but it is as well to consider how to use the contours to obtain the best position for the building with the minimum disturbance to the natural topography of the site. A respect for the topography may also lead to innovative design solutions, creating unique buildings with a very direct relationship with their setting. A detailed survey of the topography of the site and its immediate surroundings is

an essential first step in this process. The careful siting and design of buildings in relation to the landform is a particularly significant issue for sites on valley sides. Ignoring the constraints of topography or trying to impose standard floor plans can result in extensive and costly ground modelling which is difficult to blend into its surroundings.



Old buildings show respect for the land form as in this example near Garrigill

- Aligning buildings parallel with the contours helps reduce the scale of the development platform.
- When aligning buildings across the contours, a 'stepped' form will reduce the building's footprint.
- Building in to the ground, rather than clearing a platform to build on, will reduce the scale of disturbance.
- External spaces like gardens should be used to accommodate changes in level - rather than trying to develop them at the same level as the building.
- Sufficient space should be allowed to blend banks and cuttings into their surroundings at naturalistic slopes, or retaining walls should be used to achieve changes in level quickly. The intermediate solution - steep engineered slopes – is usually the most visually intrusive.
- Battered dry-stone retaining walls can be very effective and are characteristic of the area.
- In some cases a large change in level can be disguised more discretely by using more than one solution – a slightly steepened slope in combination with a low retaining wall for example.
- Engineered slopes that can't be improved should be disguised. Planting with native trees and shrubs can help assimilate these in time.

Sensitive earth modelling can also be used to screen otherwise visually intrusive features. Low earth mounding or more naturalistic 'land-raising' can help screen elements like car parking, service areas, oil tanks or sewerage treatment plant. Small changes in level can often be highly effective. Slopes facing towards sensitive viewpoints should be created at shallow gradients (>1:3). Inward facing slopes can be steeper or retained by walls.

Trees and shrubs

Existing Vegetation

Trees and shrubs form an essential element of most of the village landscapes of the AONB and are a major factor in the local distinctiveness of its varied landscapes.

Mature trees and shrubs are always an environmental asset, but particularly so in the North Pennines where growth rates are low and shelter from the elements is at a premium. Rather than being ignored or treated as obstacles on a development site they should be conserved where possible and integrated into the design.

Trees are protected by law in many circumstances. They may be covered by a Tree Preservation Order, a planning condition or a restrictive covenant. In Conservation Areas certain works to trees, including felling, require notification to, and consent from, the local planning authority. Before planning any work that involves a tree you should consult your local planning officer. Further information on trees and the law is given in Appendix 4.

Protecting trees on a development site takes careful surveying, planning and management. The procedures for doing this are set out in the British Standard BS5837:2005 Trees in Relation to Construction. This sets out the need for detailed survey, the development of a Tree Constraints Plan (TCP) and a Tree Protection Plan (TPP). You may need to engage a landscape architect or arborist to assist in this process. Local Authority Planning teams can also offer advice. A detailed survey, TCP and TPP are normally required to accompany a Planning Application.



A village green enhanced by trees and attractive front gardens

New buildings should not be sited so close to existing trees that their construction causes physical damage or restricts the potential for future safe growth of the tree. A rule of thumb suggests that dwellings should be sited no nearer than a distance equal to two thirds of the predicted mature height of the tree on the assumption that most structural damage in the case of a falling tree is caused by lower major limbs and trunk. New buildings should also not be sited so close to existing trees that future occupiers are likely to come into conflict with the tree – either because of shading, leaf drop or concerns over safety.

The design of the building including its foundations and drainage should take the presence of the tree – and its future growth potential - fully into account. The design of any features within the rooting area of the tree – including any changes in levels, surfacing or drainage - should also have regard to effects on the tree.

Mature trees and shrubs that are to be retained as part of the development will need be fully protected in the development phase from such factors as physical damage or soil compaction by vehicles or storage of

materials. This usually entails protective fencing around a root protection area. Advice on where to go for further information on protecting mature trees and shrubs on the development site is given at the end of this section

New Planting

Trees and shrubs can make an enormous contribution to both the quality of new development and the extent to which it is assimilated into its setting. The need or potential for new planting will vary between developments.

Where there is a need to screen large buildings or unsightly operational areas perimeter screening belts may be required. It is important that these are designed appropriately so as not to become alien features in their own right. There is little point trying to hide an ugly building with an ugly or conspicuous shelterbelt. Try to design these as ‘small woodlands’ that fit into their surroundings. Avoid creating narrow linear features that run against the grain of the topography or geometric blocks that stand

out from their surroundings. Pick up any nuances of the landform in drawing the woodland boundary and, where space allows, scallop the woodland edge to break up its outline and create areas of complimentary habitat like rough grassland. Always take advice on the existing biodiversity or archaeological value of potential planting sites and avoid planting on sensitive areas.

New trees should be planted with careful thought to their mature height and spread including a respect for the vigour of the root systems which can cause disturbance to the foundations of boundary walls, to path surfaces and drains if adequate space is not allowed. Taking specialist advice from a landscape architect or forester will help you avoid these pitfalls and deliver a well-designed and cost-effective scheme.

In exposed upland landscapes like the North Pennines trees grow slower than in the lowlands. Robust planting areas give more shelter to the young trees in the short term and to the building in the longer term. Narrow shelter belts that grow into rows of wind-sculpted ‘lollipop’ trees have little value

as screening or shelter.

Whether planting for shelter or screening it is important to plant species native to, or characteristic of, the locality. Native species already have a strong presence in the landscape – from ancient woodlands to abandoned quarries – and are well adapted to the conditions found here. In addition to simply ‘looking right’ in the landscape they have a much higher biodiversity value than most imported species.

Woodland types particularly characteristic of the North Pennines include oak and oak-birch woodlands on acidic soils and ash and



Robust shelter planting in Weardale

alder-ash woodlands on limestones. Many woodlands contain a mixture of these different types due to the rapidly alternating rock strata typical of the North Pennines. Species should be chosen to reflect the composition of native woodland types best suited to the underlying geology, soils and drainage of the site.

On exposed sites a high proportion of hardy ‘nurse’ species like downy birch or common alder (on wet ground) can be used and thinned out in later years. On more sheltered or fertile sites planting mixtures should have a high proportion of under-storey shrubs to make them both more visually dense and increase their shelter value. The woodland edge can be particularly rich in smaller native trees and shrubs which can be chosen for the decorative (and wildlife) value of their flowers and berries.

Native woodland types suitable for larger planting schemes

Upland Oak and Oak Birch woodlands

Suitable for planting on acidic soils.

Planting mixtures should be dominated by Downy Birch and Sessile Oak with smaller numbers of Rowan, Holly and Hazel. On poorer soils and exposed sites the proportions of Hazel and Holly should be reduced and Birch increased.

Upland Ash and Alder-Ash woodlands

Suitable for planting on base-rich soils over limestone or flushed fertile slopes in the valley bottom.

Planting mixtures should be dominated by Ash and Hazel with smaller numbers of Downy Birch, Sessile Oak, Rowan, Holly, Bird Cherry, Hawthorn, Elder, Goat Willow and Grey Willow. On wetter sites Common Alder should be the dominant species.

Smaller native trees and larger shrubs suitable for planting in urban situations.

Downy Birch
Silver Birch
Rowan
Bird Cherry

Hazel
Holly
Crab Apple
Guelder Rose

Blackthorn
Hawthorn
Juniper

In addition to native species there are a number of imported species with a long association with the area and a strong presence in the landscape. These include:

- non-UK natives (Sycamore, Larch);
- UK natives not native of the North Pennines (Beech);
- former natives that have long disappeared from the area and have since been re-introduced (Scots Pine); and
- ornamental species often planted in parks and village greens (Common Lime, Horse Chestnut)

All of these species have their place in the landscape but some should be used with caution in shelter planting. Beech and Sycamore are very wind-hardy but both cast a dense shade which suppresses the shrub layer and ground flora leading in later years to tree belts with little low-level shelter and little biodiversity. A group of wind-swept sycamores beside an isolated farm may be an iconic image of the North Pennines, but they could also represent a mistake our grandfathers made that they never got a chance to learn from and which we aren't



An edge mix including fast growing Rowan complements larger, longer lived species in the woodland core.

doomed to repeat. Scots Pine and Larch can also behave in the same way in narrow belts although both can be a useful nurse crop in a mixed plantation on a poor site.

When planting belts or blocks of trees it is always advisable to use small plants – 2 year old transplants, 'undercuts' or whips – rather than larger standard trees which will often be slow to establish and particularly in exposed situations. Small plants are much cheaper and will usually overtake larger stock in a very few years. Shelter from the elements and

protection from livestock and rabbits are often critical to success in the North Pennines as is weed control in the early years. Information on sources of detailed advice on tree planting techniques can be found at the end of this section.

When planting individual trees close to buildings or in gardens and public spaces there are many smaller native trees and shrubs that are suitable for the task. Planting local natives can help link the development visually with the wider landscape and express the distinctive upland character of the area.



Use of larger trees such as staked standards is expensive but can give instant effect in sheltered locations. Planting smaller stock is more cost effective for larger areas.

Selecting the correct site for planting is critical and the following considerations should be taken into account:

- The ultimate size of the tree.
- The proximity of buildings, other structures and any underground or over ground services such as telephone and electricity supply cables.
- The potential to obscure any road sightlines or road signs. This can prove hazardous to road users and pedestrians.
- Trees with heavy leaf fall, such as horse chestnuts, should not be located near roads, car parks and footpaths where slippery conditions could be dangerous. These trees should also be kept away from gutters and drains.
- Trees such as limes and sycamores which are affected by sugar secreting aphids should also be avoided in car parks or near seating areas.

Trees grow and obstruct daylight. Choose species carefully and do not plant in close proximity to windows. Trees can cause structural damage to buildings if they are

blown over, most structural damage being caused by the heavier lower limbs and trunks. To avoid concern, trees should be planted no nearer to a dwelling than two thirds of their mature height.

Most tree roots grow in the top 60cm (2 ft) of the ground. The pattern of root development varies greatly between species. As a general rule, roots will spread considerably further than the canopy will extend. Tree root growth is only capable of exerting a comparably small force, however this may cause small structures with no foundations - drives, paths, patios and garden walls - to be moved or distorted. Roots are opportunistic and will grow to exploit moisture and nutrients. Fine roots can penetrate minute cracks and joints in drains.

Selecting the right species for planting takes some care and will depend on the physical conditions of the site (soil type, drainage, exposure) and the space available for the trees eventual height, crown size and root spread. Some species are intrinsically unsuitable for planting close to typical domestic buildings because of the invasive, shallow, or long-reaching characteristics of

their root systems. Varieties of willow, apple, cherry, plum, poplar and large conifers varieties such should be used with caution. As a simple rule, they should be planted no nearer than one and a half times their potential height from drains or walls. Information on sources of detailed advice on tree planting techniques can be found at the end of this section.

Guidance on ornamental planting in gardens and public open space is beyond the scope of this document. It should be noted, however, that the design of ornamental planting can help reinforce the 'natural' and 'upland' character of the North Pennines if it takes its inspiration from the natural vegetation of the area. Schemes using native heathers, junipers and hardy ferns for example rarely look out of place.

Boundaries

Walls

Stone walls stretching out from the buildings and settlements of the AONB are, as much as any other feature, the element that binds building and setting together. The walls of gardens and in-bye fields form a unifying network anchoring the settlement into the local landscape. Often the stone used in their construction comes from the same quarries as the finer dressed stone of the buildings, sometimes coming from the thinner or more weathered strata.

The craft of stonewalling is still very much in evidence in the North Pennines and though it is a slow and relatively expensive form of construction, the stone wall proves a durable investment. Many of our gardens today shelter within walls built in the 18th and early 19th centuries which have required or received almost no subsequent repair.

Conserving and repairing existing dry-stone walls in and around the development site, and building new walls of an appropriate character, can help assimilate new buildings into their surroundings and make a positive

contribution to the character of the area. In doing so it is important to use local walling styles and materials where possible.

There is considerable variety in the character of walls in the North Pennines, which may reflect their age, local walling styles, or the different types of stone available for their construction. Older walls, or those built near rivers or in areas of boulder clay, may be built with irregular rounded stone from the river bed or stone clearance in the adjacent fields. Later walls, or those built in areas with thinly bedded and readily worked stone, may be constructed of more regular material.

Coarse Carboniferous sandstone is widely used in the North Pennines, as is Carboniferous limestone and red Triassic sandstone where it outcrops along the western scarp. Walls may include other material such as whinstone found in river cobbles or boulders in the glacial clays. In some areas different materials may be combined. For example in the Eden valley earthenware coping stones may be found complimenting red sandstone walls. Closer to Penrith, red sandstone through stones or



Road side walls conduct the traveller into the village and bind settlement and surrounding fields together.



This crenelated garden wall runs out smoothly to embrace a paddock.



Earthenware copings to garden wall. Gamblesby, Eden Valley.



Neat roughly rounded capping stone to this dry stone field wall.

'thruffs' can be found reinforcing walls of smaller limestone rubble.

The dimensions of walls vary with the locality as do coping styles which include rough, angular or rounded cope stones stacked vertically, or flat flagstones laid horizontally. Variations of 'buck and doe' coping with alternating larger and smaller or vertical and horizontal stones are common. Coping with turves or sods is found occasionally.

Although it can be difficult today to obtain newly quarried stone from very local sources, there are a number of quarries in the AONB supplying material of an appropriate general type. There is also often a ready supply of salvaged material available through builders or stone-wallers in the area. Stone already present on site should be preserved and set aside for re-use. Stone gateposts in particular are expensive to replace and should always be salvaged.

Boundary walls made in pre-cast concrete blocks are not appropriate in the AONB. Artificial stone is rarely successful and is usually out of character with local stonework. These and many other obviously engineered or artificial products should be excluded from the designer's palette.

Walls and Biodiversity

Stone walls, particularly dry-stone walls, can be valuable refuges for wildlife and present opportunities for enhancing the biodiversity of a site. The dry conditions provide an ideal habitat for invertebrates, birds, reptiles and small mammals, and also for a wide variety of plants.

If local stone (and lime mortar) is used, the plants, lichens and mosses that grow on the wall will reflect local geology and flora and reinforce the sense of local distinctiveness. Walls can also provide shelter for hedges and more fragile planting and assist in initial establishment.

- Close to the house or in the building of higher walls for the garden it is best to build a mortared wall so that it can remain fairly slender and of constant thickness. This should incorporate a damp proof course at its foot and have a top capping also bedded on a damp proof course.
- Garden walls should match either the building or the local drystone walling style.
- At the settlement's edges where land has been taken out of agricultural use the boundary wall should be akin to the dry-stone field walls with slightly 'battered' i.e. sloping faces to give strength and the copings set tightly on top or bedded on an inconspicuous layer of mortar or turf.
- Generally the coursing of stone walls should follow the contours of the ground.



Polypody Fern and Lichen, Allendale.

Hedges

Hedges are characteristic boundary features in the more sheltered parts of the North Pennines and particularly the upland fringes and lower dales. Well-maintained hedges can provide screening, shelter and privacy to buildings and gardens as well as valuable wildlife habitat.

It is an offence under the hedgerow Regulations (1997) to remove most types of rural hedgerow without first notifying the relevant local authority (see Appendix 4). The regulations do not apply to works covered by a planning consent. When in doubt, seek the advising of your local planning officer.

Hedges in the North Pennines date from many periods of enclosure including parliamentary enclosures of the C18th and earlier piecemeal enclosures of village fields and wastes from the medieval period onwards. Some of these hedges, and particularly those on ancient parish and township boundaries, may be the oldest continuously used man-made artefacts in the landscape. Protecting hedges on a development site requires the same amount of care as with other forms of vegetation (see

above).

Conserving and renovating existing hedges in and around the development site, and planting new hedges of an appropriate character, can help assimilate new buildings into their surroundings and make a positive contribution to the character of the area. In some circumstances hedges can provide a more effective screen than narrow belts of tree planting. It may be much easier to screen a development in views from a road or footpath by planting a hedge alongside the road or track, or allowing an existing hedge to grow taller, than by planting closer to the building itself.

Hedges are living features that need to be managed. In the absence of management they will grow out into a line of leggy bushes and ultimately disappear. Established hedges may need remedial works to bring them back into good condition. This may involve laying, coppicing, or gapping up. This is generally a specialist exercise and advice should be sought from a suitably qualified contractor. Further information on where to get advice on hedgerow management can be found at the end of this section.

Typical species mix suitable for a new hedge in the North Pennines

Major species	
Hawthorn	60%
Blackthorn	20-25%
Hazel	5-10%
Holly	5-10%
Minor species (around 5% in total)	
Bird Cherry	
Dog Rose	
Rowan	
Hedgerow trees (around 20m apart)	
Sessile Oak	
Common Ash	

In most rural situations, including larger gardens and development plots, new hedgerows should be made up of species which are native to the area and characteristic of its hedgerows. The way hedges are planted can vary according to the locality. Sometimes they are planted directly into the ground, at other times they are planted on raised hedge 'cams' or larger 'hedge-banks'. In some cases hedge banks may be faced with dry-stone walling on one or two sides. Further information on where to get advice on hedgerow planting can be found at the end of this section.

Fences, Gates and Barriers

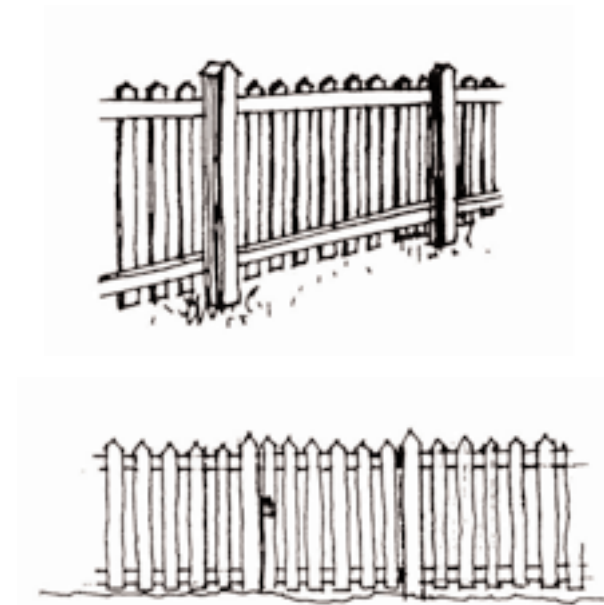
Fences are much cheaper to erect than stone walls or hedges. They do not achieve the same visual effect, and are not as durable, but may be particularly appropriate in some situations. Visually light fencing like high tensile wire may be preferred in situations where it is undesirable to draw attention to the line of a new boundary. The use of fencing on new boundaries may allow older boundaries to continue to read as the dominant pattern - for example when subdividing an existing walled field into smaller paddocks.

Various types of fence are common in and around the settlements of the AONB ranging from timber post and rail with vertical palings, to timber posts with wire and netting. Fencing associated with gardens tends to be 'restrained' in character rather than being highly ornamental, and decorative detailing tends to be subtle and low-key.

Materials normally associated with urban areas such as metal paling, chain link and close-boarded timber fencing should generally be avoided and particularly in

prominent 'frontage' locations.

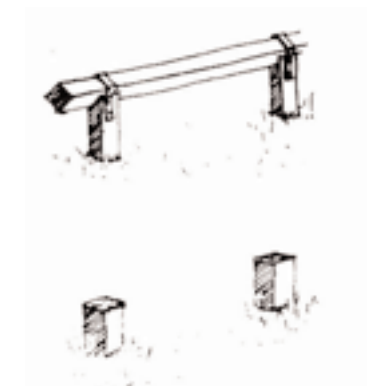
Elaborate, ornate or high railings and gateways have a suburban quality and should be avoided. Openings and driveways should be in scale with their surroundings. Gates in fences should reflect the style of fence. For gates in stone walls there is more freedom, but timber gates are rarely out of place.



For pedestrian gates, there are some well-tried local types – for example timber gates over a close fitting stone thresh, and with a solid or dense lower panel, which are good for excluding rabbits.

The design and treatment of timber fencing is often an afterthought, but poorly considered timber fences can have a considerable impact and particularly when treated with conspicuous finishes. Highly pigmented, and particularly the more orange dominated, wood stains are a contrast to the dark and subdued finishes used in the past. They should generally be avoided, and particularly for larger scale elements such as fencing.

Sometimes when the need is only to prevent vehicles being driven onto grass a single rail with intermediate posts is sufficient deterrent, or a simple row of stubby posts. Fencing in rural situations fits better with its surroundings if it is functional rather than ornamental. Post and rail fences with horizontal rails are more suitably 'agricultural' in appearance than diamond 'ranch-style' patterns. Plain galvanised netting is preferred over coloured netting which rarely blends with its surroundings even in greens and browns.



Plot Edges - Trims and Borders

One traditional feature of many of the historic settlements in the AONB is the maximum use of space in densely built up village centres, a pattern most clearly illustrated by the use of low plant borders and or cobble trims at the junction of walls and the highway or footpath. This kind of satisfying detail provides a valuable demarcation strip, allows for changes in level, and provides an opportunity for a positive contribution to the public realm



River cobbles used as trim at Croglin

Paving and Wearing Surfaces

One of the most satisfying aspects of the fabric of long established rural settlements is that so few external features appear superfluous or over-elaborate. This characteristic functional simplicity applies to footpath and paved areas, to the forecourts of shops and community buildings, to the edges and trim of roadways and to street furniture.

The quality of our village surroundings must often justify the investment in good quality paving of natural stone flags and setts. If these are expensive it is often possible to economise by laying a single line of paving following 'desire' lines established to customary use, bordered with cobbles.

There are numerous alternative manufactured paving products for all applications. Small setts can be used to line run-off channels between road and grass. Road verges can be defined with stone or specialised concrete blocks, though our country lanes are spoiled with heavy standardised concrete kerbs and gutter blocks. The natural look of grass lying over the edge of the road surface is preferred.



Appleby: high quality paving complements this fine listed building

Driveways and Hard-standing - unbound surfaces and minimalist approaches

Car parking can be very intrusive and it is important to reduce the prominence of parking areas.

A key consideration in selecting surfaces for drives and hard-standings is to provide a surface appropriate to the volume of traffic carried. The surface of the car parking area should be capable of withstanding the effect of wheel-turning; rolled asphalt can be softened by hot sun and can easily be churned up in this way. A long tarmac drive for occasional use is wasteful in materials and can be intrusive in a natural setting where unbound gravel would be more appropriate. A thin layer of fine carboniferous limestone chippings on a typical sub-base will create a well drained hard wearing surface on level ground. Other fine gravels can be equally attractive but do not possess the chemical setting properties of carboniferous limestone. On steeper slopes chemical binders or resins may be necessary in order to avoid erosion but these may still incorporate locally occurring gravel.

In rarely used locations surfacing can be kept to a minimum with grass access or wheel track width surfaced access routes.

For a 'greener' finish, one could consider the use of grass reinforcement products. These can range from mesh incorporated into the turf, to relatively rigid blocks with holes for the grass to grow through. Where the level of use is low or seasonal, reinforced grass surfaces can provide a useful intermediate form of surfacing; however their use in over-used or poorly drained locations (for example the heavy clay soils of the North Pennines) can create an unsightly combination of bare compacted soil and concrete. Perforated block solutions can also create trip hazards which compromise DDA access compliance.



The very simplest provision for vehicular access is appropriate here

- Parking areas and driveways are better located at the side or rear of buildings where cars will be less prominent.
- It helps if garages can also be tucked round the back of a building not directly visible from the public road.
- A slightly raised front wall or hedge can help to screen vehicles from the road.

Porous Surfaces – Edge Details and Drainage

Both grass and gravel described above reduce the unnecessary use of materials, but also have considerable drainage advantages. Their porous structure reduces the need for run-off collection, minimises the need for piped storm water drainage and reduces peak flows in nearby watercourses in times of high rainfall, intrusive edging detail, such as kerbs are also less necessary in most situations.

Drainage – Ditches and Channels

Irrespective of whether porous surfaces are used, drainage to ditches in rural parts of the AONB should be considered wherever possible. Where possible consider directing surface water run-off into shallow ditches; these can be cleaned out easily and also provide a micro habitat for local wildlife. In a more urban context channels formed using small setts create pleasing edge details. Run-off from hard surface can be directed to storage cisterns for re-use in plant irrigation.

Lighting

Light pollution (light shining where it is not needed) is everybody's problem. It is a waste of both energy and money for the property owner, a potential nuisance to their neighbours, and contributes generally to the urbanisation of the rural landscape and the loss of darkness in our night skies.

Bright light shining into other people's homes can reduce their quality of life. Environmental Health Officers receive complaints about loss of sleep and loss of privacy with badly diverted or unnecessarily powerful lighting. Sources of light pollution are varied but can include street lighting, domestic and commercial security lighting and illumination to advertise commercial premises. There are a number of basic steps that can be taken to reduce artificial light pollution to help maintain night time tranquillity and dark skies and also reduce harmful effects on ecology (i.e. bat roosts), whilst reducing energy consumption.

- Consider whether lighting is necessary at all and if it is, where it is needed and why?
- Direct light only where it is needed, downward rather than upward, or focused on the particular task.
- Use low intensity lights to reduce glare and dark spots. Softer and more uniform light is often better for security and safety.
- Adopt limits for the level of illumination appropriate to the wider setting of the development.
- Think about views from the wider countryside and making best use of the screening benefits of topography, planting and buildings.
- Look for opportunities to reduce the need for lighting by, for example, using CCTV instead of security lighting, Use motion sensors for security with minimum setting for the lighting period.

The North East is rated as having the lowest level of light pollution of the English Regions and many visitors remember seeing bright stars and the Milky Way in our dark night skies CPRE 'Night Blight' 2003

Further information

County Durham Landscape Guidelines. www.durham.gov.uk
County Durham Landscape Guidelines: Trees 2009
County Durham Landscape Guidelines: Hedges 2009
County Durham Landscape Guidelines: Woodlands and Forestry 2009
County Durham Landscape Guidelines: Broad Landscape Types 2009
Carlisle City Council www.carlisle.gov.uk
Trees on Development Sites: Supplementary Planning Guidance

County Durham Hedgerow Partnership Technical Guidance Documents. www.durham.gov.uk
Hedge Planting
Hedge Laying and Coppicing
Cumbria Landscape Classification. www.cumbria.org.uk
Landscape Character Assessment of Tynedale District and Northumberland National Park.
www.northumberland.gov.uk

Sustainability and Flexibility for Future Use

A former president of the Royal Institute of British Architects, Alex Gordon, commissioned a report in the 1970's, before the word 'sustainability' reached its current political vogue, entitled 'Long Life, Loose Fit, Low Energy'. This three-part title might well serve to describe the nature of much of the traditional building stock we have inherited in the AONB and to guide us in considering contemporary design towards a sustainable built environment.

Reuse of buildings and land

Property in the past was constantly being modified to suit changing family size, economic status or developing functional purpose. Much of the building industry's business today is a continuation of this process and much of the architectural history of the AONB would be dull without it. Traditional building construction has proved remarkably adaptable and robust and reflects the value of sustainability.

The way we maintain, alter, extend or convert existing buildings is fundamentally a sustainable process in which the land, building structure and existing materials are likely to be reused, thus reducing the volume of new resources to be consumed and the volume of waste material for disposal. The use of reclaimed materials will result in a significant reduction in the embodied energy

of the project.

New building work will involve site development either on land released from previous use – (referred to in shorthand as Brownfield Land) – or land that has had no previous development on it – Greenfield Land. For reasons of land economy and protection of the finite resource of Britain's undeveloped countryside the use of Brownfield sites is the preferred option for development, though problems may be met of residual pollution from previous use. In cases of Brownfield development of former industrial land-use sites, or the conversion of industrial or agricultural buildings the Local Planning Authority may require an investigation and report on the possible ground contamination, toxic waste and geo-technical properties of the development area.

Minimising waste

Consideration of construction waste should be given at the early stages of a project. With conservation and alteration work there is unlikely to be any significant volume of excavation material but for new build and extension sites where it is necessary to demolish a redundant structure then more material is generated.

Sending waste to landfill sites is undesirable for a number of environmental and economic reasons. A far more sustainable response is to design for the use of recycled materials, and to put in place provisions for construction waste to be incorporated in the new development. A number of options can be considered shown left.

Arrangements with suppliers can result in a reduced environmental impact through improved efficiency and a reduction in waste to landfill. The criteria below could be considered.

Minimise volume of excavation through consideration of building footprint and appropriate foundations

Consider use of crushed demolition material in the hardcore for the building

Consider separation, storage and re-use of

- turf rolled
- topsoil reused
- seeds kept from existing plants
- compost from existing plant matter

Separation of waste streams that could be sold or used again elsewhere

Reuse of spare materials on site – off-cuts for shops, etc

Delivering programmes to reduce length of storage time on site with risk of damage and subsequent disposal as waste.

Delivery of building materials

- allow for inspection of materials
- reject / return defective materials
- return protective packaging
- agreement with plasterboard manufacturer that waste will be collected and re-used
- consider timing of delivery to avoid storing materials on site, and reducing the risk of damage and waste

Use of multi-use palettes, preferably in recycled plastic, for protection and storage of materials, to reduce damage and waste

Use of existing markets for refurbishment waste to reuse unwanted materials, including windows, timber, bathroom suites and kitchens.

The use of reclaimed materials will result in a significant reduction in the embodied energy of the project. This involves minimal processing between demolition of the original building and construction of the new building, as opposed to recycling.

If a building has been detailed in such a way that it can be dismantled and the materials and components reclaimed and recycled or re-used at the end of its lifespan, then this will have a positive effect on the embodied energy of both the original and future buildings. This will also reduce the volume of construction and demolition waste sent to landfill.

- Where new materials are being specified, consider the possibility for inclusion of recycled elements, for example, recycled cellulose insulation.
- Use sustainably managed sources should also be used wherever possible. In terms of timber, for example, the FSC or PEFC logo will ensure that the forests are managed responsibly.
- Systems which have been developed to use a reduced volume of materials, such as timber I-beams rather than solid beams, should be considered.
- Design for durability, to reduce the amount of maintenance required and minimise future consumption of resources.

Minimise energy in construction and use

With new buildings the three dimensional form of the structure can reduce energy consumption through reduction in exposed perimeter compared with the enclosed volume. Environmental sustainability can be achieved through the incorporation of passive energy features in the form of the building. The use of day lighting, natural ventilation and passive heating and cooling will produce a low energy building with reduced environmental impacts, whilst still achieving comfortable internal conditions for occupants. The microclimate surrounding the building can influence the operational energy consumption, and there are design considerations in orientation and siting of new buildings which can help reduce energy demands in use.

- Seek shelter from the natural topography of the site to reduce heat loss from the building.
- Consider the influence of the building for on localised wind patterns.
- Take advantage of managed solar gain in the arrangement of sheltered South and West facing surfaces and windows.
- Aim to achieve a balance between the benefit of natural lighting and potential heat loss in the design of windows.

If possible, the building would be ideally positioned to take advantage of solar energy, avoid the wind and driving rain, whilst preserving the potential for views.

- The selection of materials will influence the embodied energy of the project, which consists of the energy used for the following processes:
- extraction of raw materials
 - manufacture of building materials
 - transport energy between stages of manufacture, and to construction site
 - construction / demolition / destruction.

The component of the embodied energy will be less than that used in the operational life of the building, but will still be significant and should therefore be addressed during the design process.

Responsible sourcing of building components, specification of natural materials and limitation of transport distances are key considerations in the reduction of embodied energy.

The traditional building materials used in the past have low levels of embodied energy, being natural with minimal processing, and locally sourced to minimize transport energy. The use of these materials in a development will therefore have benefits in terms of a low embodied energy approach.

To minimise environmental impacts, the following criteria should be considered:

- Reduce volume of goods ordered by, for example, organisation of site procedures, re-use or repair of existing materials wherever possible
- Specify products from sustainably managed sources, which use minimal volumes of raw materials, and promote fair trade
- Consider the whole life cost of products – for example, a higher initial capital outlay on a high specification building fabric may save money in the long term through reduced heating bills
- Source materials locally where possible to invest in the local economy and reduce transport energy
- Select products free from ozone depleting substances, solvents, Volatile Organic Compounds, etc, to reduce pollution and provide a healthy indoor environment
- Consider products with the potential for re-use or recycling to avoid landfill
- Consider use of reclaimed or recycled materials.

Pollution

Indoor Air Quality

There are no concerns over the release of toxins, Volatile Organic Compounds, etc to the interior if traditional building materials and finishes are used in a development

The use of modern construction materials are not so environmentally benign, however, and can result in chemicals being released to the interior of a building, to the detriment of the occupant's health.

To avoid problems such as Sick Building Syndrome, or increased asthma cases, the building materials and finishes should be considered carefully. Natural materials with minimal manufacturing or processing will have least potential for negative impacts on the indoor environment, and components such as carpets, paints and wood preservatives should be carefully considered.

- The most effective way in which to eliminate pollution is to reduce the energy demand from the building. This can be achieved in a number of ways
- increasing the insulation levels in the building fabric
 - upgrading the specification of the glazing
 - maintaining and enhancing the traditional natural light and ventilation strategies
 - efficient energy systems, for example heat recovery, use of condensing boilers, etc.
 - siting development near public transport routes to reduce dependency on car travel.

Atmospheric Pollution

The widespread availability and use of electricity is a relatively recent phenomenon, and would not have been relied on in the original buildings in the AONB. The modernisation of these buildings is likely to introduce a new rate of energy consumption, and with it an increase in atmospheric pollution.

- The degree to which the building will cause pollution will depend on a number of factors, including:
- the chosen fuel source
 - the efficiency of the building fabric and systems
 - the use of passive energy.

Renewable Energy

The focus of public policy on reducing carbon emissions from fossil fuels and encouraging the development of alternative sources of renewable energy has a major impact on the way we think about incorporating the technology in building. New building forms which maximise the efficiency of renewable energy plant can be explored in which the designed impact of these components can be thoroughly integrated with the structure.

Suitability of a particular technology would have to be assessed for each individual installation. There is a range of issues to consider, including the available natural resources on site, the likely visual impact, and the requirements for delivery of fuel, maintenance, etc.

Solar panels

Solar panels receive energy from the sun which heats a fluid carried in pipes to an indirect hot water cylinder for use at the normal draw-off points in a building. In most cases a secondary heat source will be required to ensure the desired water temperature in the absence of sunlight.

- The assumption is that solar panels will be:
- Mounted at an angle between 15° and 50 ° facing between South East and South West
 - Sited to avoid being overshadowed by adjacent buildings or chimney stacks
 - Designed to maintain the simplicity of the roof form and have minimal aesthetic impact
 - Designed to stretch from ridge to eaves or gable to gable rather than 'planted' on the roof slope as an object
 - Generally the surface of the panels should blend with darker roof materials

Photovoltaics

Photovoltaics generate electricity from solar energy, which can be linked to a particular function within the building, the general electricity supply for the building, or can be linked to the National Grid.

In a new building, it should be possible to incorporate photovoltaics into the roof or façade as a component of the overall concept and the design considerations are very similar to those for solar panes (see previous box).

Wind Turbines

Small scale turbines of various configurations are available that make use of this natural resource to generate clean, renewable electricity.

As a rough guide, a 2m diameter turbine will produce 4,500 kWh per annum, which would be enough to heat the domestic hot water in a typical house.

The appropriate siting of a wind turbine is critical in terms of the operating efficiency, power output and economics. Detailed information on the appropriate siting of a turbine, in relation to its efficiency, is available from the British Wind Energy Association.

It may be possible to use the geometry of the building to enhance the performance of a turbine, for example through channelling the wind through a tapering gap to increase speed, and power output as a result.

Advice on siting can be provided by the AONB Partnership Staff Unit even for small scale turbines for which no planning permission may be required unless thy are to be in a Conservation Area.

Micro wind generation projects require great care in the siting of turbines:

- Avoid skyline locations
- Avoid siting within 5 metres of a public right of way
- Try to ensure that the turbines are viewed against a backdrop of woodland or hillside wherever possible
- Turbine colour should be chosen with softening landscape impact as the goal.

Alternative technologies with minimal visual impact include:

Biomass

Mains gas is unavailable in large parts of the AONB and in these circumstances the typical approach is to provide space heating and/or domestic hot water through an oil fired, LPG or Calor gas system. An environmentally viable and economic alternative could be to use biomass, which involves the burning of wood fuel to heat water for space heating and/or domestic hot water.

Burning of wood fuel releases no more CO2 during combustion than that which has been absorbed during the growing phase, so the system is considered to be carbon neutral. The transport of fuel can add emissions and should be considered, but the overall effects are likely to be negligible.

Boiler housing will be require, and this is likely to be larger than a conventional system. A water-tight store will also be required to take bulk deliveries of wood fuel, which are typically in tonnes at a time. It should be noted that this system will require a greater amount of input in terms of operation and

maintenance as compared to a conventional alternative and many timbers leave deposits of wood tar in the appliance flue which can be difficult to remove, except by burning at high temperatures.

Geothermal

Geothermal technology can be used to supply low level energy heating and / or cooling, requires an adjacent area of free land in which to bury pipework coils: if there is an area of open land associated with the building, then a ground source geothermal system could be considered.

Low grade heat from the ground is converted to temperatures suitable for space heating, to provide a viable alternative to the use of fossil fuels. Temperatures in this system tend to be slightly lower than for a conventional heating system, and would therefore not be considered suitable for domestic hot water. This is, however, ideal for use with underfloor heating. A system such as this would have minimal visual impact once in operation. Housing for the heat pumps would be required, but tends to be unobtrusive as these are relatively small, stackable elements. The most significant impacts arise during installation, when an area of land would be disrupted. After installation, the topsoil, turf, etc. can be

replaced and the landscape be reinstated in a short timeframe.

Micro hydro

A small scale turbine is positioned in a stream or river to produce clean renewable energy: small scale turbines can be placed in existing rivers or streams to generate electricity from a renewable source. It is recognised that these sites will be (although the North Pennines offers some potential with reliable fast flowing burns and rivers).. The available power is related to the flow rate and the difference in level (head). Lower head systems, i.e. with a shallow gradient are possible, but may require additional infrastructure, while systems with a sufficient fall can be more efficient, even with a lower volume of water.

Each potential site would have to be assessed to determine feasibility and the available power, based on flow rates, available head, seasonal flow characteristics, etc. The Environment Agency would also have to be approached for relevant permissions.

Water and drainage

Supply

In order to economise on the use of water and the cost of water bills upgrade bathroom and/or kitchen fixtures and fittings to modern equivalent with low water consumption including:

- Spray taps
- Low flow rate showers (<9 litres/min)
- Low volume cistern WCs
- Economic dishwashers / washing machines

Grey water

- Consideration of rainwater harvesting for applications including flushing of WCs and irrigation
- Grey water collection from sinks, basins, baths, etc, and re-use is the less favoured option, and is likely to be appropriate for only a small minority of projects

Drainage

- Connect to municipal sewage system for foul drainage, if possible
- If there is no available public drainage system, a package treatment plant would




be the next consideration. Septic tanks should be considered only as a last resort

- Solutions such as composting toilets and reed beds are ideal in environmental terms, however, would require maintenance and upkeep by the users. This is generally an unpleasant and undesirable task, and should only be considered in situations where conventional sewage solutions are unavailable, and where the client has requested it and has a full understanding of what will be involved
- In accordance with Approved Document Part H of the Building Regulations 2000, the first option for surface water disposal should be the use of sustainable drainage methods (SUDS) which limit flows through infiltration – soakaways, swales, ponds, porous paving, etc.
- Reduce volume of external surface water drainage through arrangement of landscaping, consideration of green roofs, etc

Economic Sustainability and Skills

The distinctiveness of the built environment of the AONB derives more than anything from the character of local stone and sands carried over short distances because transport was difficult. Transport is today a less significant part of costs but local sources of building materials are still available. Their appropriate use to sustain local character will also contribute to a vibrant local economy.

The Planning Authorities wish to encourage the continued use of material produced within the region, recognising their authenticity and functional appropriateness. They also wish to support the continuing transmission of local skills to match the increasing demand for quality development within the AONB. The Building Industry and training colleges throughout the region have picked up the serious implications of skill shortage and there is an information campaign launched by the VAR Initiative Ltd. in 2005 to provide a database of locally accessible skills and sourced materials.

Date	2010	2013	2016
Energy efficiency improvement of the dwelling compared to 2006 (Part L Building Regulations)	25%	44%	Zero carbon
Equivalent standard within the Code	Code level 3 	Code level 4 	Code level 6 

Standards

The **Code for Sustainable Homes** was introduced by Government in 2008. The Code measures the sustainability of a new home against nine categories of sustainable design, rating the 'whole home' as a complete package. The Code uses a one to six star rating system to communicate the overall sustainability performance of a new home. The Code sets minimum standards for energy and water use at each level and, within England, replaces the EcoHomes scheme, developed by the Building Research Establishment (BRE).

New homes may be required to meet a particular rating against the code as part of the government's intention of meeting a target of all new homes being built to zero carbon standards by 2016. All new social housing must be built to a minimum of Code level 3. The code is voluntary for privately built housing, but all new homes must be assessed against the code and include the Code certificate within their Home Information Pack. Local authorities may additionally use the Code to require minimum standards of sustainability for new

housing provided for in their LDF policies. You should check this with your local planning officer.

BREEAM

the Building Research Establishment's Environmental Assessment Method(BREEAM) is a widely used method for assessing the environmental performance of building projects. Like the Code it uses a scoring system across a range of environmental and sustainability parameters. While the Code relates to residential buildings BREEAM can be applied to a wider range of development types. As with the CODE local authorities may use BREEAM to require minimum standards of sustainability for new development provided for in their LDF policies. You should check this with your local planning officer.

Further information

Standards

Code for Sustainable Homes - www.communities.gov.uk
BREEAM - www.breeam.org

Guidance and Grants

Building-In Sustainability - www.ignite-ne.com
Sustainability in the North East of England - www.sustaine.com
Clear Skies - www.clear-skies.org
Energy Savings Trust - www.energysavingtrust.org.uk
Carbon Trust www.carbontrust.co.uk
Enhanced Capital Allowance www.ea.gov.uk

Northumberland County Council. County Hall, Morpeth, Northumberland, NE61 2EF

Tel: 0845 600 6400

Fax: 01670 511413

Email: ask@northumberland.gov.uk

Website www.northumberland.gov.uk

Durham County Council. County Hall, Durham, DH1 5UL

Tel: 0300 1237070

Fax: 0191 383 4500

Website www.durham.gov.uk

Cumbria County Council. The Courts, Carlisle, Cumbria, CA3 8NA

Tel: 01288 606 060

Email: information@cumbriacc.gov.uk

Website: www.cumbria.gov.uk

Carlisle City Council. Civic Centre, Carlisle, CA3 8QG

Tel: 01288 817000

Email: customerservices@carlisle.gov.uk

Website www.carlisle.gov.uk

Eden District Council. Town Hall, Penrith, Cumbria, CA11 7QF

Tel: 01768 817817

Fax: 01768 890470

Email: customerservices@eden.gov.uk

Website: www.eden.gov.uk

The list below details Supplementary Planning Documents (SPD) relevant to building design that are adopted, under preparation, or proposed by local planning authorities in the AONB area. Those that are dated are adopted at the time of this publication. Those without dates are proposed. For up-to-date information check the relevant local authority website.

Cumbria County Council

Cumbria Landscape Character SPD

Durham County Council

Sustainable Design SPD, Green Infrastructure SPD

Carlisle City Council

It is proposed to update these existing SPG (currently saved and linked to saved policies) as SPD: Trees on Development Sites (currently under review), Countryside Design (to be programmed), Cumbria Design Guide (currently under review), Designing out Crime in Residential Areas (currently under review), NP AONB Agricultural Buildings Design Guide (currently under review), NP AONB Design, Maintenance and Adaptation of Rural Buildings (currently under review).

Eden District Council

Shop front and Advertisement Design SPD (2006), An Accessible and Inclusive Environment SPD (2007)

Listed Buildings

Listed Buildings are buildings recommended by English Heritage for inclusion on statutory lists of buildings 'of special architectural or historic interest' compiled by the Secretary of State for Culture, Media and Sport.

Buildings can be listed because of age, rarity, architectural merit, and method of construction. Occasionally English Heritage selects a building because the building has played a part in the life of a famous person, or as the scene for an important event. An interesting group of buildings - such as a model village or a square - may also be listed.

The older a building is, the more likely it is to be listed. All buildings built before 1700 which survive in anything like their original condition are listed, as are most built between 1700 and 1840. After that date, the criteria become tighter with time, so that post-1945 buildings have to be exceptionally important to be listed.

Listed buildings vary considerably and not all are habitable. The category also includes a wide range of monuments and other

structures from milestones to lamp posts.

The buildings are graded to show their relative architectural or historic interest:

- Grade I buildings are of exceptional interest
- Grade II* are particularly important buildings of more than special interest
- Grade II are of special interest, warranting every effort to preserve them

Grade I and II* buildings may be eligible for English Heritage grants for urgent major repairs.

The demolition of a listed building or any alterations affecting its character requires a listed building consent application to be submitted to the Local Planning Authority (LPA). Listed building consent is required for many works that do not require planning permission. If the works do require planning permission listed building consent is still required. Repairs on a 'like for like' basis do not normally require consent.

In considering whether to grant consent for development which affects a listed building or its setting, the local authority will have special regard to the desirability of preserving

the building or its setting or any features of special architectural or historic interest which it possesses.

Works carried out without consent can result in prosecution.

To find out whether a building is listed you should contact your LPA. For more information on listed buildings generally visit the English Heritage website at www.english-heritage.org.uk

Conservation Areas

Local authorities have the power to designate as Conservation Areas any area of 'special architectural or historic interest' whose character or appearance is worth protecting or enhancing. This is judged against local and regional criteria, rather than national importance as is the case with listing. Many of the historic towns and villages of the AONB are designated in whole or in part as Conservation Areas.

In a Conservation Area permission from the local LPA is required before undertaking some works that would not normally require permission elsewhere. As a general guide, the following works require permission: you are advised to contact your LPA for specific guidance relating to your proposals.

- Works to extend buildings, clad external walls, alter a roof, insert dormer windows or put up satellite dishes
- The demolition of almost any building
- Work to trees including felling, topping and lopping
- The display of advertisements which may

have a significant visual impact

In some conservation areas, there are further limits as to the type of development that can be carried out without the need to apply for permission. In these areas, Article 4 Directions apply. This means extra provisions are in place to protect special features such as windows and doors. If your property is in a conservation area you should contact the LPA to find out if it is affected by an Article 4 Direction.

Grants for carrying out improvements in conservation areas are available through a number of schemes run in association with English Heritage. These usually focus on specific towns and villages and run for a fixed period. Contact the LPA for more information.

Tree Preservation Orders

In order to protect individual trees or groups of trees that are of value to the community, the local planning authority (LPA) may create a Tree Preservation Order (TPO).

A TPO makes it a criminal offence to fell, lop, top, uproot or otherwise wilfully damage a protected tree without the permission of the LPA. There is a fine of up to £20,000 per tree if convicted in a Magistrates Court. For other offences there is a fine of up to £2500. If convicted, a replacement tree will also normally need to be planted on or near the place where the tree was destroyed. You are advised when considering carrying out work on any trees to check with the Council as to whether the trees are protected.

If a tree is protected by a TPO, consent will normally be required for pruning or felling. An application must be made by completing the standard application form, stating the reasons for the application and giving details of the proposed work. Supporting technical information may also be required if the reason for the application relates to the condition of the tree - for example due to the

presence of pests, diseases, fungi or structural defects affecting the safety of the tree. Written evidence from an appropriate arboricultural professional may be required in support of the application.

If the reason for the application relates to suspected structural damage caused by the tree, a report from a structural engineer/surveyor together with technical advice should normally be submitted in support of the application.

Trees in Conservation Areas

Trees in Conservation areas are also protected by planning legislation. You will need to notify the LPA in writing six weeks in advance of any works if you wish to fell or prune any tree in a Conservation Area. This gives the Council an opportunity to consider protecting the tree by imposing a Tree Preservation Order.

Trees covered by planning conditions

Trees on Development Sites may be protected by a planning condition that is usually in force both during the construction phase and afterwards. The planning condition may bind future occupiers not to remove or damage trees and give the local authority the power to enforce replanting should any loss or damage occur.

Felling licences

The felling of over a certain volume of timber requires a Felling Licence which can be obtained from the Forestry Commission.

Hedgerows

Under the Hedgerow Regulations 1997, it is against the law to remove most countryside hedgerows without the permission of the LPA. These Regulations do not apply to garden hedges. To get permission to remove a countryside hedgerow, you must write to your LPA.

The way in which the Regulations apply to individual hedges can be quite complex. It is therefore advisable to speak to your LPA before you formally seek permission to remove a hedge. On receipt of a notice to remove a hedge the local authority will assess it against criteria set out in the Regulations to discover whether it qualifies as an 'important' hedge. To qualify as 'important', the hedgerow must be at least 30 years old and at least 20m long (although shorter hedges can be included if linked to other hedgerows) and meet at least one of eight criteria relating to the hedgerow's archaeological, historical, wildlife or landscape value.

If the authority decides to prohibit the removal of an 'important' hedgerow, it must

let you know within 6 weeks. If you remove a hedgerow without permission, irrespective of whether it would be considered to be an important hedge, you may face an unlimited fine. You may also have to replace the hedgerow. More detailed

guidance can be found in *The Hedgerows Regulations 1997: a Guide to the Law and Good Practice* and *Hedgerow Regulations - Your Questions Answered* available from DEFRA.

Produced by the North Pennines AONB Partnership with Spence and Dower Architects. Written by Robin Dower, Ged Lawson (seconded to the AONB Partnership), Elizabeth Pickett and Chris Woodley-Stewart.

Geological map (page 17) produced by Marcus Byron from information supplied by the North Pennines AONB Partnership. All other photographs and illustrations: Spence and Dower. With thanks to Jilly Hale, Carlisle City Council.

Produced by the North Pennines AONB Partnership

NORTH PENNINES AONB PARTNERSHIP



Working together for the North Pennines

with the support of:



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Introduction

Aim and Objectives

This document provides guidance on development in or affecting the North Pennines Area of Outstanding Natural Beauty (AONB). It is aimed at all of those who affect the environment of the AONB: planners, developers, builders and householders.

It is specifically designed to help implement the planning policies relating to the AONB that are contained within the Local Development Frameworks (LDF) of local authorities. It seeks to secure a consistency of approach towards planning matters across the AONB to ensure that planning policies and development control decisions continue to support the conservation of its special qualities while accommodating the development needs of its communities.

The adoption or endorsement of these Guidelines by local planning authorities will reduce the involvement of the Partnership on planning applications, although it will continue to be involved in those applications with special and significant interest.

The main objectives of the Guidelines are to:

- ensure that new development conserves and enhances the natural beauty of the North Pennines; and to
- stimulate the highest standards of design, conservation and development

Four of the five planning authorities within the North Pennines (Cumbria County Council, Durham County Council, Northumberland County Council and Carlisle City Council) have collaborated with the North Pennines AONB Partnership in developing these guidelines and intend to either adopt the document as a Supplementary Planning Document as part of their Local Development Framework or endorse it as Supplementary Guidance. For Eden District the Guidelines will represent the basis for the North Pennines AONB Partnership's position when consulted on various planning matters, and the local planning authority will be encouraged to use them in considering planning applications. Further information on the adoption / endorsement process is given in Appendix 1

Scope and Purpose

One of the principal ways in which the natural beauty and special character of the North Pennines can be conserved is through the application of consistent and appropriate planning guidelines that complement the area's designation as a landscape of national importance. This does not mean placing restrictions on development, innovative design or new ideas, but actively promoting essential development that complements the character of the landscape and helps stimulate economic activity whilst increasing the sustainability of communities.

The Guidelines do not deal with the principle of major development proposals in the North Pennines AONB, as these are subject to policies in Planning Policy Statements and Regional Spatial Strategies, but should be used in considering the details of such proposals and the impact of major development in the vicinity of the AONB. Any proposals that are likely to have significant environmental effects may be subject also to an Environmental Impact Assessment. However, the principal threat to the character of the area comes less from major development than it does from the piecemeal erosion of distinctiveness that accompanies small-scale change.

The purpose of this document, as well as providing information on the planning framework, is to provide further planning guidelines to developers, property owners and the public on a range of issues that threaten the piecemeal erosion of local character and could have a detrimental effect on the AONB landscape.

It is being prepared using information from a range of background documents, including national and regional guidance and external technical documents. Much of the evidence base will be taken from the North Pennines AONB Management Plan 2009 -2014. The Guidelines are accompanied by more detailed Building Design Guidelines and therefore do not deal with that subject in detail.

How to use this document

This document should be read in conjunction with the relevant policies and Supplementary Planning Documents of Local Development Frameworks. It should be read in conjunction with the AONB Building Design Guidelines (2010 consultation draft).

Some of the guidance in this document relates to works which require planning permission. Some guidance also relates to works that will require building regulations consent or consents under the Planning (Listed Buildings and Conservation Areas) Act [as amended] 1990 etc. Before considering any development in the AONB you should contact your local planning authority (LPA) to confirm whether planning permission or other consents are required. Contact details are given in Appendix 1.

Designers, developers and landowners should have regard to the guidelines when preparing their plans, proposals and strategies. Local authority planning officers should have regard to the extent to which development proposals reflect the guidelines when assessing planning applications.

The consultation process

This document is published as a consultation draft. Comments on the document should be made to the North Pennines AONB Partnership, Weardale Business Centre, The Old Co-op Building, 1 Martin Street, Stanhope, County Durham, DL13 2UY. Tel: +44(0)1388 528801. Email: info@northpenninesaonb.org.uk

Adopting this guidance as a Supplementary Planning Document (SPD)

Although the North Pennines AONB Partnership has prepared this document, authorities intending to adopt it as an SPD have to set out details in their LDS to indicate which DPD or saved policy it is supplementing and the timetable for its preparation and adoption. The SPD will likely relate to a policy within the Core Strategy DPD or saved policy from a Local Plan dealing with landscape protection within the AONB, its quality and character. It will be an expression in more detail of what this core policy really means and how it is implemented in practice. Also, prior to adoption, each authority has to demonstrate that they complied with the relevant procedures for the preparation of LDDs. Any consultation carried out needs to be in conformity with their Statement of Community Involvement (SCI).

Adopting this guidance as a Supplementary Planning Guidance (SPG)

As an alternative to adoption as an SPD, local authorities may wish to endorse this document as supplementary guidance produced by another body under the provisions of PPS 12 (6.3)

Supplementary guidance to assist the delivery of development may be prepared by a government agency, Regional Planning Body or a County Council or other body (e.g. AONB committee) where this would provide economies in production and the avoidance of duplication e.g. where the information in it would apply to areas greater than single districts. Such guidance would not be a supplementary planning document. However, if the same disciplines of consultation and sustainability appraisal (where necessary) are applied, such information might, subject to the circumstances of a particular case, be afforded a weight commensurate with that of SPDs in decision making. This may be more likely if the district/borough/city councils to which it is intended to apply endorse the guidance, or if the document is an amplification of RSS policy and it has been prepared by an RPB.

Category V Protected

Landscape/ Seascape:

a protected area managed mainly for landscape/ seascape conservation and recreation

An area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity.

Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

AONBs and their Statutory Framework

The North Pennines AONB is one of a family of AONBs established in England and Wales under the National Parks and Access to the Countryside Act 1949. Along with National Parks, AONBs are “protected landscapes” formally recognised in statute as representing the finest countryside in England and Wales, where special policies should apply to safeguard, conserve and manage the countryside for the benefit of this and future generations.

There are 40 AONBs covering 18% of England and Wales (35 wholly in England, 4 wholly in Wales and 1 which straddles the border). The North Pennines AONB is in the both the North East and North West Government Office Regions. Other AONBs in the regions are Northumberland Coast, Solway Coast, Forest of Bowland and Arnsdale and Silverdale. The purposes of designation were restated by the then Countryside Agency in 2001¹ as follows:

- *The primary purpose of designation is to conserve and enhance natural beauty.*
- *In pursuing the primary purpose of designation, account should be taken of the needs of agriculture, forestry, other rural industries and of the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of social and economic development that in themselves conserve and enhance the environment.*
- *Recreation is not an objective of designation, but the demand for recreation should be met so far as this is consistent with the conservation of natural beauty and the needs of agriculture, forestry and other uses."*

These purposes have since been endorsed by Natural England.

The statutory definition of natural beauty includes "flora, fauna, geological and physiographic features." This has been interpreted by the Countryside Agency and successor body as follows. " 'Natural Beauty' is not just an aesthetic concept, and 'Landscape' means more than just scenery. The natural beauty of AONBs is partly due to nature, and is partly the product of many centuries of human modification of 'natural' features. Landscape encompasses everything – 'natural' and human – that makes an area distinctive: geology, climate, soils, plants, animals, communities, archaeology, buildings, the people who live in it, past and present, and the perceptions of those who visit it."

AONBs are therefore lived in, working landscapes whose character has been created and maintained by human activity over the generations and where sustaining their quality will continue to depend on careful stewardship of the land.

The approach of "protected landscapes" has been adopted internationally. AONBs in England and Wales are defined within Category V protected landscapes by the World Conservation Union (IUCN).

Part IV of the Countryside and Rights of Way (CROW) Act 2000 confirmed the significance of AONBs, and made it a statutory responsibility for local authorities (or Conservation Boards) to act jointly to produce a Management Plan for any AONB in their area and to review it at intervals not exceeding five years (Section 89 of the Act). This duty has been carried out in all AONBs through the AONB Partnerships, which oversee the designation. The Act also placed a duty on all

Principles for the management of Category V Protected Landscapes

As part of the family of Category V protected areas, the principles that should guide the management of AONBs include:

- Conserving landscape, biodiversity and cultural values as the central focus of the Category V protected area approach
- Focussing management at the point of interaction between people and nature
- Seeing people as stewards of the landscape
- Undertaking management with and through local people
- Management based on co-operative approaches
- A political and economic environment that supports effective management
- Management of the highest professional standard that is flexible and adaptive
- Measurement of the success of management in environmental and social terms

Management Guidelines for IUCN Category V Protected Landscapes/Seascapes, IUCN, 2002

public bodies and statutory undertakers to have regard for the purpose of designation when carrying out their own functions (Section 85).

The importance of management plans and partnerships to guide action in protected landscapes has been recognised by IUCN in a set of principles recommended in 2002 by the IUCN Commission on National Parks and Protected Areas (CNPPA)

Policy Context

Legislation and National Policies

National planning policy states that AONBs, along with National Parks, have the highest standard of protection in relation to landscape and natural beauty. The conservation of the natural beauty of the landscape and countryside, therefore, should be given great weight in planning policies and development control decisions. National planning policy also makes it clear that major developments should not take place in these designated areas, except in exceptional circumstances which are in the national public interest.

No distinction should be made between AONBs and National Parks on grounds of landscape quality and they receive the same level of protection. This was confirmed in June 2000 by Nicholas Raynsford M.P, the then Minister for Housing, Planning and Construction who announced that:

'In relation to major projects, it is the Government's view that, henceforth, the assessment required in paragraph 4.5 of PPG7 in National Parks should also apply to proposals for major development in AONBs'.

Raynsford's position, subsequently incorporated in PPS7, was reiterated in a policy statement by DEFRA released in 2005:

'National Parks, the Broads and Areas of Outstanding Natural Beauty

(AONBs) have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection'.

Planning Policy Statements (PPS) and Minerals Policy Statements (MPS), prepared by Government, explain statutory provisions and provide advice and guidance to local authorities and others on planning policy and the operation of the planning system. They also explain the relationship between planning policies and other policies, which have an important bearing on issues of development and land use. They were introduced under the provisions of the Planning and Compulsory Purchase Act 2004, and are gradually replacing the old style Planning Policy Guidance Notes (PPG), some of which are still relevant.

Local authorities take PPS into account in preparing their development plans and making decisions on individual planning applications. The most relevant to development in the North Pennines AONB are:

- PPS1: Delivering Sustainable Development (2005);
- Draft PPS1(supplement):Planning and Climate Change (2007);
- PPS7: Sustainable Development in Rural Areas (2004);
- PPG8: Telecommunications (2001)
- PPS9: Biodiversity and Geological Conservation (2005);
- PPS15: Planning and the Historic Environment (1994);
- PPS16: Archaeology and Planning (1990);
- PPS22: Renewable Energy (2004);
- PPS25: Development and Flood Risk; and
- MPS1: Planning and Minerals (2006).

Regional and Local Policies

The Planning and Compulsory Purchase Act 2004 introduced a new system of development plans that abolished Structure Plans and replaces Regional Planning Guidance (RPG) with Regional Spatial Strategies (RSS). These now inform Local Development Frameworks (LDF), which will eventually replace District Local Plans.

The North East of England Plan Regional Spatial Strategy to 2021 was formally adopted in July 2008. This covers those parts of the AONB lying within the

administrative areas of Durham and Northumberland County Councils. The North West of England Plan Regional Spatial Strategy to 2021 was formally adopted in September 2008. This covers those parts of the AONB lying within the administrative areas of Cumbria County Council, Carlisle City Council and Eden District Council.

Local Development Frameworks

Local planning authorities are now in the final phase of either reviewing their local plans or starting to replace them with new Local Development Frameworks (LDF). These can be either Development Plan Documents (DPD), such as core strategies, site allocations and generic development control policies, or Supplementary Planning Documents (SPD) that elaborate upon policies in these documents (or 'saved' policies in existing local plans). The documents being prepared are identified in each council's Local Development Scheme.

During the period in which LDFs are being prepared, policies saved from Local Plans constitute the development plan. There are effectively six District Local Plans covering the AONB together with three Minerals Local Plans and three Waste Local Plans. As LDFs progressively emerge, the situation with regard to saved policies will change. The definitive source of information on the planning policy environment for any individual development will be the local planning authority. Details of saved, emerging and adopted policies are published on their websites. Local Planning Officers can give advice as to which policies will be relevant to a proposal at the time of application.

Supplementary Planning Documents

As SPDs form part of an LDF they are a material consideration in the determination of planning applications and are subject to a statutory process of preparation, community involvement and sustainability appraisal. Although they have statutory status they do not enjoy development plan status, but still need to be consistent with PPS, and be in general conformity with RSS. Also they should be in conformity with, and clearly cross-referenced to, the relevant DPD (or 'saved' local plan) policies they support.

There are a number of existing and emerging SPDS in LDFs covering the AONB and dealing in some degree with issues covered in this document. These are listed in

Appendix 2. Local planning officers and local authority websites are the best source of up-to date information on the publication and scope of SPDs

The AONB Partnership is also preparing a Building Design Guidance document which will be adopted by authorities as an SPD or endorsed as Supplementary Guidance (see How To Use This Document above) which should be read in conjunction with this document.

The North Pennines AONB

“This country, though politically distributed among three counties, is one and the same in all its characteristic features. From it flow the Tyne, the Wear and the Tees and many branches, which fall into these rivers. Along the banks of these and several other smaller streams which fall into them are dales or valleys, cultivated near the banks and for a short distance up the sides of the hills, but soon cultivation and enclosure cease, and beyond them the dark fells, covered with peat and moss and heath; and between one vale and another is a wide extent of high moorland, extending sometimes for a dozen miles. In these upland tracts are no inhabited homes but thousands of blackfaced sheep are scattered over them; and there breed the grouse which attract the sportsmen at the proper season of the year to this country.”

(Royal Commission into Children’s Employment in the Mines.W.R. Mitchell. 1842)

This description of the North Pennines in 1842 might equally have been written today. The close similarities of the landscape of over 160 years ago and that of today in large measure reflects the continuation of land management practices. The enclosed valley bottom meadowland and the open moors maintained for sheep and for sport are the product of a largely unbroken management tradition. Ensuring the continuation of such established management methods is essential to retaining the character and diversity of the North Pennines landscape.

It is, however, misleading to consider the North Pennines landscape as timeless and unchanging. From prehistoric times (when the clearance of the natural North Pennines forest began) to today, when pressures ranging from changes in agricultural policy to reservoir building have affected the landscape, change has been continuous. The writer of the above description was employed in investigating conditions in the lead mines, which during that period had

transformed many parts of the North Pennines into a semi-industrial landscape. Although often damaging to natural assets, such change has been important in establishing the variety of the North Pennines landscape and supporting active local communities and the local economy.

The Designation Order for the North Pennines AONB was made in 1978 and confirmed on 7th June 1988. At 1983 km² it is the second largest of the AONBs and covers parts of the counties of Durham, Cumbria and Northumberland and parts of the districts of Carlisle and Eden.

The North Pennines has a population of about 12,000 people, less than half its population in 1861, when 27,000 people lived in the ore-field. The majority of the AONB population lives within the North Pennine dales, where settlements include small towns such as Alston and Allendale, together with relatively compact villages, isolated hamlets and a wide scatter of individual farmhouses. The AONB boundary excludes the main settlements within and adjoining the lower dales such as Stanhope, Wolsingham, Haltwhistle, Middleton-in-Teesdale, Barnard Castle and Hexham, which cater for much of the social and economic needs of the uplands. However, development here and elsewhere close to the boundary can have a significant impact on the natural beauty of the AONB.

Much of the North Pennines is truly remote, wild countryside and it is precisely this sense of wildness and remoteness, which imbues much of the area with its character. Tranquillity mapping exercises in 2006 identified the North Pennines as one of England's most tranquil places, still relatively free from noise and light pollution. There are few places in England where you can walk all day without crossing a road, but it is still possible here, such as in the south west of the AONB on the wild moorland plateau and summits between Hartside and Stainmore Common.

The rise and fall of the lead mining industry has shaped much of today's landscape, not only in the physical remains that can be seen, but also in the pattern of local settlements. Weardale, Teesdale, and the South Tyne, Nent and Allen Valleys in particular, are some of the best places to see the remains of the industry and to see the 'miner – farmer landscapes', which grew out of it. The miner farmers from the 16th century enclosed this landscape, but beneath the surface of today's pattern of fields, villages and moorland there is a history of settlement and landscape

change from mediaeval to prehistoric times. Norse, Roman, Iron Age, Bronze Age and possibly Neolithic settlers began shaping this land, perhaps as far back as 7,000 years ago.

In the lower and middle dales, drystone walls impose strong pattern on the landscape, where buildings on the valley sides are picked out by clumps of trees. Buildings and settlements are an integral part of the landscape, with most being built of local stone, reflecting the underlying geology, complimenting the stone field walls and reflecting the surrounding countryside. Wading birds feed in the in-bye grassland, rushy pastures and hay meadows. These hay meadows are of international importance and are awash with wildflowers. Rare alpine plants, relics of the last Ice Age, still survive in upper Teesdale.

The world famous rivers, Tyne, Tees and Wear have their birthplace high up in the fells. They tumble, rock strewn, along the dales, clothed in woodland in their middle and lower reaches. Where the rivers cross the erosion-resistant dolerite of the Whin Sill, dramatic waterfalls are formed, such as those at High Force, Low Force and Cauldron Snout, in upper Teesdale.

The world renowned geology of the area has given rise to dramatic landform features, most famously High Force and the sweeping U-shaped valley of High Cup Nick, on the Pennine Way above Dufton. The geological importance of the area was part of the reason for the designation in June 2003 of the AONB as the first 'European Geopark' in Britain and in 2004 as a founding member of the UNESCO Global Geoparks Network.

The North Pennines has a remarkably high concentration of nationally and internationally important conservation sites and areas. 36.5% of the AONB is designated as Sites of Special Scientific Interest (SSSI). There are also 2 National Nature Reserves (NNR), 5 Special Areas of Conservation (SAC) under the EU Habitats Directive, with five more under consideration, and a Special Protection Area (SPA) under the EU Birds Directive. Moor House – Upper Teesdale National Nature Reserve, Britain's largest terrestrial NNR, supports more than 20 species of Europe-wide conservation importance and in this context it is the most important reserve in the country. This reserve alone is larger than several of England's smaller AONBs. There are also many sites of more local importance, County Wildlife Sites, which contribute much to the area's natural beauty. Nearly 80% of the AONB

comprises some form of semi-natural vegetation and plantation woodland. Only 20% has been significantly agriculturally improved and only 0.6% can be considered 'built up'.

The North Pennines is a nationally important area for many species of wildlife, including, 12% of Great Britain's merlin, 10% of Great Britain's golden plovers and 80% of England's black grouse. The AONB also supports 40% of the UK upland hay meadows, 35.7% of England's upland heathland, (1.1% of UK) and 20% of England's blanket bog (3% of UK). Other important habitats include upland unenclosed calcareous grassland, upland unenclosed acid grassland and the calaminarian grasslands associated with the effects of lead mining.

Each of the North Pennine dales has a distinctive character and attractive villages to explore, such as Alston, Middleton in Teesdale, and Allendale. Quiet country roads crossing the high moors between the dales offer dramatic views of this outstanding landscape.

This is dynamic, productive, working countryside. Farming and forestry play an important role in the lives of local communities and in managing the landscape. The management of our moors for shooting and our rivers for fishing can be of benefit to wildlife and supports the livelihood of local people. Many farmers are diversifying into new activities and many more are taking advantage of schemes, which support environmentally friendly practices. Tourism is becoming an increasingly important aspect of the local economy, and it is a high quality environment, which is likely to be the motive force of the North Pennine economy in the future.

More information on the special qualities of the AONB can be found in [What's Special about the AONB?](#) A companion document to the AONB Management Plan 2009-2014 which can be downloaded from the AONB Partnership Website

Pressures on the Landscape

There are many pressures on the quality and character of the North Pennines landscape. They include pressures from development, pressures from changes in the way land is used or managed, pressures brought about by new technologies, and global pressures like climate change. The communities of the North Pennines

are also under pressure from economic forces including rising house and fuel prices, changing patterns of employment and a decline in key services.

The landscape has always adapted to the changing needs of our communities and will continue to do so. It is also one of our main assets. The challenge for the future will be to ensure that we meet societies evolving needs while conserving and enhancing the area's special qualities on which our prosperity and well-being depends.

The main development pressures on the varied landscape of the AONB are summarised in the table below. The list does not include pressures arising, for example, from changing land management practices, but focuses on those related to development which are the subject of these guidelines. These pressures do not always exert a negative influence on the landscape. Sensitively located and well-designed development can strengthen the character and 'sense of place' of the landscape, and can often contribute to meeting other environmental objectives like enhancing biodiversity and reducing energy use.

Pressure	Landscape type													
	Lower Dale	Middle Dale	Upper Dale	Moorland Ridges	Moorland Summits	Moorland Plateaux	Moorland Scarp	Moorland fringe	Moorland fringe pikes	Upland Fringe	Upland Fringe Valleys	Upland Fringe Foothills	Coalfield Upland Fringe	Lowland Vale
Housing	•	•								•	•	•	•	•
Industry														
Minerals / waste		•					•	•		•		•	•	
Agricultural	•	•	•					•	•	•	•	•	•	•
Leisure / recreation	•	•						•	•	•	•	•	•	•
Equestrian	•	•								•	•	•	•	•
Wind energy	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Telecoms	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Overhead services	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tracks				•	•	•	•	•						
Building conversion	•	•	•							•	•	•	•	•
Building renovation	•	•	•							•	•	•	•	•
Highway works	•	•	•			•		•		•	•	•	•	•
Traffic	•	•	•	•		•	•	•		•	•	•	•	•
Signage	•	•	•							•	•	•	•	•
Light pollution	•	•	•			•				•	•	•	•	•
Noise pollution	•	•	•			•				•	•	•	•	•
Loss of traditional buildings	•	•	•							•	•	•	•	•
Loss of traditional features	•	•	•					•	•	•	•	•	•	•

Guidelines: environmental resources

This section gives general guidance for planners and developers on the conservation and enhancement of environmental resources – landscape character, biodiversity and geodiversity, cultural heritage, tranquility, soil, air and water.

Landscape Character

The character of the landscape is one of the North Pennines' most valued assets. New development can make a positive contribution to the landscape but can also damage it in a number of ways. Mature landscape features like hedges, walls and mature trees may be damaged or removed; new features that are uncharacteristic of the landscape may be introduced; important views or vistas may be obstructed. In a landscape of such unique character, the introduction of standard elements that are commonplace and widely accepted elsewhere may erode its local distinctiveness.

When considering any development it is essential to gain as much understanding of the local landscape as possible, using published landscape character assessments, personal observation and analysis of the site, and the guidance of qualified and experienced advisors.

Information on the landscape of the North Pennines as a whole can be found in two Countryside Commission publications that can be viewed on the Natural England Website:

- Countryside Character. Volume 1: North East (CCP 535) and Volume 2: North West (CCP536) and
- The North Pennines Landscape (Countryside Commission 1991. CCP 318

Local authorities in the area have carried out more detailed landscape character assessments. These include:

- The County Durham Landscape Character Assessment, Strategy and Guidelines
- The Cumbria Landscape Classification

- Landscape Character Assessment of Tynedale District and Northumberland National Park.

At the time of publication additional work was being undertaken to produce a North West Integrated landscape Framework which includes the landscapes of those parts of the AONB lying in Cumbria, and a Northumberland Landscape Character Assessment which includes those parts of the AONB lying in Northumberland

Landscape character assessments include detailed descriptions of landscape types and character areas that can provide useful information on the site and its surroundings and help identify key features or characteristics of the landscape that might be affected by the development. They will also generally explain the trends and pressures operating on the landscape, identify priorities for conserving and enhancing landscape character, and provide guidelines for development and land management. Priorities for landscape enhancement are also found in the AONB Management Plan.

For larger developments or development in particularly sensitive locations the LPA may determine that it is necessary to carry out a Landscape and Visual Impact Assessment (LVIA) as part of an Environmental Statement (ES). This should also be used to inform the design process. LVIA is a specialized process best undertaken by suitably qualified and experienced Landscape Architects. Where an LVIA is required it should be carried out in accordance with the latest published guidance, and its scope, methodology, and the selection of viewpoints and visualizations like photomontages should be agreed with the LPA at an early stage.

GUIDELINES: Landscape character

- Find out as much as you can about the landscape of the site and its surroundings. Refer to published landscape character assessments for information.
- Investigate and record the character of the site – produce a photographic record of the site, and important views of it, together with accurate survey drawings of its topography and surface features.

- Where significant landscape impacts are anticipated, or landscaping works are required, consult a professional Landscape Architect (see contacts). Where necessary, have them carry out a Landscape and Visual Impact Assessment and use it to inform the design process.
- Avoid prominent locations and novelty in design or materials - respecting and conserving the character of the landscape should be the main principle informing site selection and design in the AONB.
- Exploit the potential of topography and existing vegetation to screen or assimilate the development into the landscape.
- Retain and protect mature traditional features like hedges, walls and field trees where possible (see Protecting Features on Development Sites)
- Where mature features can't be retained, consider translocation or the salvage and the re-use of materials like walling stone and stone gateposts.
- Where trees are likely to be affected find out if they are protected by Tree Preservation Orders or by falling within a Conservation Area.
- Look to the local landscape for design inspiration. Pay particular attention to the scale, mass, form and detailing of local buildings, local vegetation patterns and local styles of walls, hedges, fencing, gates and paving materials.
- Use natural materials in construction where possible and particularly local stone and timber.
- Consider what your development can do to enhance the landscape, and particularly to meet objectives set out in the AONB Management Plan and local authority landscape or countryside strategies or guidelines.
- Look both inside and beyond the site for opportunities to enhance the local landscape or integrate the development within it - for example through the repair or renovation of features like walls and hedges.
- Plant new trees and woodlands to help screen and assimilate the development where these are characteristic of the local landscape. Avoid

planting on sites of existing nature conservation or heritage interest, or those where planting would obscure important views or vistas.

- Use native species or species characteristic of the locality (see Tree and shrub planting) in landscaping works and particularly when planting trees, woodlands or hedgerows.
- Maintain newly planted trees and hedges to a high standard to ensure that their potential is realized.
- Further information
- Countryside Character: Volume 2: North West. naturalengland.org.uk
- The North Pennines Landscape (Countryside Commission 1991. CCP 318)
- County Durham Landscape Character Assessment. www.durham.org.uk
- Cumbria Landscape Classification. www.cumbria.org.uk
- Landscape Character Assessment of Tynedale District and Northumberland National Park. www.northumberland.gov.uk
- Biodiversity & Geodiversity

Biodiversity means the biological diversity of life. It includes a wide range of living things from flowering plants to mammals, birds, insects and bacteria. It includes common species, those that are under threat, and the habitats that humans, plants and animals depend on. Geodiversity means the variety of rocks and minerals, landforms, soils and geological process that are a key component of our natural heritage.

The North Pennines AONB has a particularly rich biodiversity and geodiversity. It contains one of the highest densities of international, national and locally designated sites in England and is home to many protected species. Not only do we have an international and national responsibility to conserve this diversity but it is fundamental to the natural beauty of the landscape on which much of our quality of life and economy depends. Despite the richness of these resources in the AONB they continue to be under pressure from forces such as development, climate change, changes in land management and a legacy of fragmentation and isolation.

New development can bring threats and benefits to biodiversity and geodiversity. Important habitats or features can be destroyed or damaged and protected species disturbed or displaced. Development can also bring opportunities to create new habitats or improve the management of existing features. It is important for the future of the natural environment of the North Pennines that all development results in positive outcomes for biodiversity or geodiversity rather than simply 'limited harm'.

The AONB's most important sites have statutory protection as Sites of Special Scientific Interest (SSSI). Some of these are also designated as National Nature Reserves or as Special Areas for Conservation (SAC) or Special Protection Areas (SPA) under European legislation. The AONB also contains a number of Regionally Important Geological Sites (RIGS) and non-statutory Local Sites (formerly known as Sites of Nature Conservation Importance or County Wildlife Sites and sometimes now named Local Wildlife Sites and Local Geological Sites). Policies for the protection of these sites are contained in local plans and emerging local development frameworks. The location and boundaries of nationally and internationally designated sites can be found on the Multi Agency GIS for the Countryside (MAGIC) website (www.magic.gov.uk). More information on these designations can be found on the Natural England website (naturalengland.org.uk). The location and boundaries of local sites are shown on local plans: up-to date and detailed information can be obtained from your LPA.

Information on protected species can be found on the Natural England website (naturalengland.org.uk). The European protected species most commonly affected by development in the North Pennines are Bats and Otter. Other species protected by national legislation (the Wildlife and Countryside Act 1981 {as amended} and Badgers Act 1992) include Badgers, Red Squirrels, Water Voles, and a large number of birds. It is also an offence under the Countryside and Rights of Way Act 2000 (CROW) to 'intentionally or recklessly' disturb nesting birds. Additional information can be gained from local wildlife trusts and other local and national specialist groups such as bat or badger groups, bird clubs and butterfly conservation groups.

National and Local Biodiversity Action Plans (BAP) contains action plans for a wide range of species and habitats, delivered through Local BAP Partnerships. Local BAPs covering the AONB include:

- Durham BAP (www.durhambiodiversity.org.uk)
- Northumberland BAP (www.northumberlandbiodiversity.org.uk)
- Cumbria BAP (www.wildlifeincumbria.org.uk).

A list of BAP priority species and habitats in the north Pennines is given in Appendix 6

The North Pennines AONB is a UNESCO European and Global Geopark and has produced a Geodiversity Audit and Action Plan (North Pennines AONB Partnership, March 2004) which gives background information on the resource and sets out priorities for action.

Guidelines: Biodiversity and Geodiversity

- Find out as much as possible about the biodiversity and geodiversity of your site and its surroundings.
- Avoid development in, or adversely affecting, sites designated for their biodiversity or geodiversity value: check with your LPA about designated areas and take specialist advice where necessary.
- Find out if your proposals would have any impact on protected species. Take specialist advice or contact your local or wildlife trust or specialist groups for advice (See Appendix 1).
- Undertake surveys at an appropriate time of year and over more than one season where necessary.
- Avoid development in, or adversely, affecting BAP priority habitats, or affecting BAP priority species (see Appendix 6).
- Avoid polluting watercourses - either from discharges or run-off from the development or during construction.
- Retain mature features or wildlife habitats within the development site – trees, hedges, species-rich grassland, wetlands. Protect them from damage

during the development phase and integrate them fully into the design of the development.

- In exceptional circumstances, where retention of wildlife habitats isn't possible, consider translocation or the salvage and re-use of seed, hay crops or other plant material.
- Retain and maintain access to important geological exposures.
- Consider the timing of operations carefully: some impacts can be avoided if works are carried out at the right time of year.
- Look for opportunities to create (or improve the management of) BAP priority habitats or habitats for BAP priority species either within the development site or off-site on adjacent land.
- Look for opportunities to meet the objectives of the North Pennines Geodiversity Action Plan.
- Incorporate wildlife-friendly features into the layout and design of the development – ponds, green roofs, flowering and fruiting plants, nesting and hibernation structures. Don't neglect common species.
- Plant species native to the locality (see Tree and shrub planting). Use plants of local or regional provenance where possible.
- Avoid introducing invasive species either intentionally as ornamental plants or unintentionally through poor quality control on imported soils or plants (see Appendix 7).
- For larger sites, talk to your local wildlife trust about developing a Biodiversity Action plan for your development.
- Develop a code of conduct for the workforce and subcontractors to ensure that they don't inadvertently damage habitats or disturb important species.

Further information ?

Cultural Heritage

The landscape we see today has been shaped over thousands of years by the activities of people. Many of the things they made, like hedges and walls, buildings, roads and paths, are still in use today. Others, like barrows and stone circles or abandoned mines and quarries, survive as relics in the modern countryside or lie buried beneath its surface. This 'time-depth' is for visitors and residents alike an important point of connection with the landscape and an important component of local distinctiveness and a sense of 'place'.

The North Pennines AONB has a rich and complex cultural heritage with features surviving from many periods from the Neolithic to the modern. There is a strong sense of cultural continuity here in which each generation has contributed something to the unique character of the area. New development is part of that process but can bring challenges to the historic fabric of the AONB. Archaeological features are particularly vulnerable as only a fraction of these are known and recorded. Old buildings and structures can be restored and given new life, but can equally be damaged by insensitive development. New development which doesn't respect the character of its surroundings can erode the special harmony and unity of the landscape or townscape in which it sits.

Nationally important archaeological sites in the AONB – which includes both standing and buried structures – are given statutory protection as Scheduled Ancient Monuments (SAM). Many other archaeological sites are recorded on Historic Environment Records (HER) maintained by local authorities. Important buildings and structures are designated as Listed Buildings, and wider areas of architectural or historic interest are designated as Conservation Areas by local authorities.

Policies for the protection of these sites and their settings are contained in local plans and emerging local development frameworks. The location and boundaries of nationally designated SAMs and Listed Buildings can be found on the Multi Agency GIS for the Countryside (MAGIC) website (www.magic.gov.uk). More information on these designations can be found in Appendix X and on the English Heritage website (www.english-heritage.org.uk). The location and boundaries of

conservation areas are shown on local plans: up-to date and detailed information can be obtained from your LPA.

Local Authorities covering the AONB have prepared, or are preparing, historic Landscape Character Assessments which provide useful information on the historic environment.

Guidelines: Cultural heritage

- Find out as much as possible about the history and cultural heritage of your site and its surroundings. Consult the County Archaeologist (see Appendix 1)
- Involve the local community or local history societies – find out what they know or value about the history of the site.
- Consider potential impacts on the settings of Scheduled Ancient Monuments, Listed Buildings or Conservation Areas: understand their visual environment and whether, or how, setting is important to them.
- If your proposals involve activities that could disturb buried archaeology – even if you don't know if any is present – discuss them with the County Archaeologist who will advise on the way forward.
- Preserve features of archaeological interest in situ wherever possible and protect them from site operations.
- Preserve mature landscape features – walls, hedges, trees - and incorporate them into the design.
- Where disturbance is unavoidable use qualified specialists to record features prior to their removal: consider salvage, re-use or relocation where appropriate.
- Look out for unexpected finds and report them to the County Archaeologist.
- Be respectful of the historical context of the development. Ensure that development doesn't detract from the appreciation and understanding of its wider setting.

- Look for opportunities to enhance the historic environment – for example by restoring or renovating features like hedges walls and other structures, or by introducing more favourable management to archaeological sites.
- Where possible sympathetically re-use or adapt redundant historic structures to give them a use that will sustain their management in the future.

Tranquillity

Seeking tranquillity is an important reason why many people visit the countryside and the presence of tranquil areas helps boost rural tourism and is an important aspect of the quality of life of local people. Tranquillity is not the absence of all noise, activity, buildings and night-time light. Research has found that many rural activities, such as farming and hiking, and natural noises such as birdsong and flowing water, enhance people's experience of tranquillity.

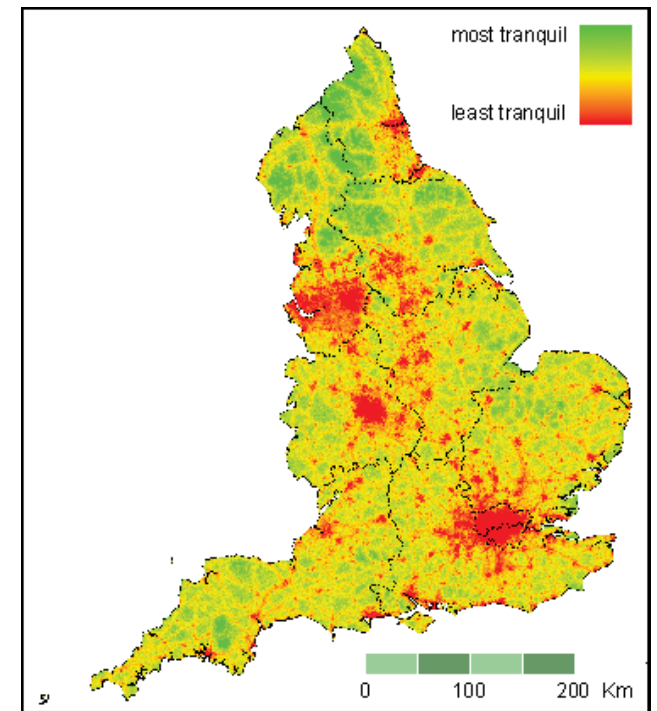
The tranquillity of the English countryside is being constantly eroded by increasing urbanisation, the growth in air and road traffic, new road building and the expansion of energy infrastructure.

The Campaign to Protect Rural England (CPRE) has mapped the factors contributing to or detracting from tranquillity to show the relative tranquillity of different areas. This shows the North Pennines to be one of the few really large areas of tranquillity left in England. The tranquillity of the North Pennines is therefore not only of immense importance to its own communities but is an asset of national importance. While the AONB is relatively free of some of the development pressures affecting other areas, its tranquillity is still under threat from piecemeal erosion. Two of the most significant causes are increased light and noise pollution.

Additional information on tranquillity and tranquillity mapping can be found on the CPRE website: www.cpre.org.uk.

Light

Artificial lighting, if not properly controlled, can be both wasteful of energy and have a serious impact on the quality of life of neighbours, the tranquillity of the countryside, the darkness of the night sky and the ecology of the surrounding area. Issues include:



National tranquillity Map

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- **Sky glow** – the cumulative effect of lighting on the night sky which loses its darkness and with it our ability to see stars and planets.
- **Glare** – the brightness of intense light that is uncomfortable to look at and creates excessive contrast that can reduce both safety and security
- **Light trespass** – the spilling of light beyond the site boundary which may make it difficult for neighbours to sleep.

These impacts can often be avoided through good lighting design, which will also very often save money.

The North Pennines has some of the darkest skies in England but even here the influence of light pollution is increasing. Sources include street lighting, domestic and commercial security lighting and illumination to advertise commercial premises. For small scale developments there are a number of simple principles that can be followed to minimise or reduce unnecessary light pollution. For more complex development such as mineral workings a detailed assessment of the lighting impacts may be necessary, and a detailed lighting strategy formulated.

Some of the things that can be done to reduce light pollution are physical design solutions, others require active management. As with other environmental effects it is always best to 'design out' the potential for harm and only use active management when that is not possible. Managing impacts requires vigilance and consistency and is therefore more prone to failure and difficult to enforce.

All light pollution however small contributes to the general erosion of darkness and tranquillity in the North Pennines and so it should be carefully considered as an issue for all new development in the AONB.

Guidelines: Light

- Consider whether lighting is necessary at all, and if it is, where it is needed and why.
- Look for opportunities to reduce the need for lighting by, for example, separating vehicles and pedestrians, introducing traffic calming measures, or using CCTV instead of security lighting.

- Adopt limits for the level of illumination appropriate to the wider setting of the development – refer to the Institution of Lighting Engineers Environmental Zones.
- Don't exceed the level of illumination required for any given application – refer to published standards.
- Use low intensity lights to reduce glare and dark spots – softer and more uniform light is often better for security and safety. Use low pressure sodium lamps where colour resolution isn't an issue.
- Direct light downwards rather than upwards – where up-lighting is essential use shields and baffles to reduce spillage.
- Chose efficient and well-designed luminaires which direct light to where it is needed and reduce spillage and glare. Install luminaires carefully to reduce glare – keep the angle of the main beam below 70°
- Only switch lighting on when it is needed – consider a curfew on lighting between certain hours when some can be switched off or overall levels reduced.
- Keep decorative architectural up-lighting to a minimum – consider only using it on special occasions and keep it understated.
- Think about views from the wider countryside and make the best use of the screening effects of topography, buildings and vegetation.
- Use motion sensors to switch lighting on – these should be set to the minimum time period and adjusted to avoid tripping by cars, passers-by or animals.

Further information

Further advice on reducing light pollution can be found in Lighting in the Countryside: Towards Good Practice (DETR) and Guidance Notes for the Reduction of Light Pollution, published by the Institution of Lighting Engineers. The Chartered Institution of Building Services Engineers (CIBSE) produce lighting guides that give recommended illumination levels for a variety of applications and guidance on good practice. The AONB Partnership's Guidance for the Management and Maintenance of Roads offers further advice on street lighting.

Noise

Noise can have a significant effect on the quality of life of a development's immediate neighbours and on the tranquillity of the wider countryside. Noise pollution can arise from both the construction and operational phases of a development, and can include the noise of machinery, site operations, road traffic and reversing alarms. Noise levels may be the subject of planning conditions, and local authorities have additional powers to control it under The Environmental Protection Act 1990 (Part III) and the Control of Pollution Act 1974 (Part III).

The background noise levels in most parts of the AONB are low, as there is little industry and few main roads. This means that the introduction of new noisy activities, such as quad biking or clay pigeon shooting, is particularly noticeable and can be disruptive to local residents and visitors alike. Noisy uses should be located away from sensitive areas, particularly residential and tourist accommodation, leisure facilities and well-used recreational routes.

If noisy activities are being considered for an area, a detailed assessment of their effect is essential. Practical steps can be taken to reduce both the level and impact of noise, but there also needs to be an ongoing commitment to monitoring and management. Where possible noise should be brought within acceptable levels by passive means – for example by placing noise sources away from sensitive receptors – rather than by relying on active management and intervention which can easily lapse and be hard to enforce.

As with light, all noise contributes in some degree to the erosion of tranquillity in the AONB and these principles should apply to all development and not just conspicuously noisy activities.

Guidelines: Noise

- Maintain adequate distances between noisy operations and noise sensitive areas.
- Make best use of the acoustic screening properties of the natural topography or existing buildings.

- Use the quietest machinery or quietest methods of working available. Make sure plant and machinery are well-maintained.
- Contain noise by sound-proofing buildings or using acoustic barriers.
- For unavoidably noisy activities, specify, monitor and enforce acceptable noise limits.
- Control the time when noisy operations take place.
- Use low noise technologies like low noise surfaces on new roads. Look for opportunities to slow the speed of vehicles using traffic management.

Further information

Further advice can be found in the Code of Practice on Noise Control on Construction and Open Sites (BS5228) HMSO (1984 and 1986) and from the Environmental Health departments of local planning authorities. In assessing potential noise impacts, guidance is provided in PPS22 Renewable Energy, PPG24 Planning and Noise, and in other specific best practice guidance such as Clay Target Shooting Guidance on the Control of Noise and Code of Practice on Noise from Model Aircraft.

Soil, Air and Water

The quality of our air, water and soils is fundamental to the environmental quality of the North Pennines AONB. All development has the potential to damage these resources in varying degrees and while many individual impacts may be small they can all contribute to a reduction in the quality of the environment.

Soil

Soils are the basis of our food supply, and much of our biodiversity, as well as helping to regulate the flow of surface and ground waters. Soils often take centuries to develop and are therefore an effectively finite resource. Although the conservation of soil resources is generally handled well by industries like the minerals industry where good practices are well understood and carefully controlled by planning conditions, soils are often an afterthought in other forms of development which can result in unnecessary damage.

The North Pennines contains many heavy clay soils, which are particularly susceptible to poor handling, and highly sensitive peat soils which are important for their carbon storage, their biodiversity, and their water holding characteristics, and which can be irreparably damaged by disturbance, poor handling and storage.

Safeguarding our Soils: A Strategy for England (Defra 2009) sets out the Government's approach to conserving soils in England. Development Plans and LDFs contain policies on the protection of agricultural land. The conservation of soils is often dealt with through planning conditions on individual developments. Adverse impacts on soils can be avoided by adopting some simple principles.

Guidelines: Soil

- Follow the Construction Code of Practice for the Sustainable Use of Soils (see below).
- Have a soil resources survey carried out by a suitably qualified person at an early stage and use it to develop a strategy for stripping, storage and replacement of soils.
- Avoid the disturbance of deep peat soils where possible. Where disturbance is unavoidable take specialist advice on their handling and care.
- Prepare a Soil Resource Plan showing the areas and type of topsoil and subsoil to be stripped, haul routes, the methods to be used, and the location, type and management of each soil stockpile.
- When stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction.
- Confine traffic movement to designated routes.
- Keep soil storage periods as short as possible.
- Clearly define stockpiles of different soil materials.
- Where soils need to be stored, use low mounds to prevent anaerobic conditions from developing.

- Where soils are stored for any length of time, seed them with native grasses to reduce deterioration. Control invasive weeds and avoid contamination and tracking by vehicles.
- Use loose tipping methods of soil replacement to reduce damage and compaction.
- Ensure that the entire soil profile replaced is in a condition to promote sufficient aeration, drainage and root growth.
- Tailor the use of soils to the proposed after-use. Low fertility subsoils are better suited to creating wildlife habitats than higher fertility topsoils.

Further information

The Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra 2009) gives guidance on protecting and conserving soils and can be obtained from the Defra website: www.defra.gov.uk

The Good practice guide for handling soils (MAFF, 2000) provides comprehensive advice on soil handling to operators, soil moving contractors, consultants and planning authorities.

Standards for soils and their uses can be found in

- British Standard code of practice for general landscape operations (BS4428: 1989),
- National Building Specification Landscape (updated 2007)
- British Standard specification for topsoil and requirements for use (BS3882: 2007)

The Guidance for successful reclamation of mineral and waste sites (Defra, 2004) provides guidance for LPAs considering the adequacy of planning applications, restoration proposals and aftercare provisions for quarries and landfills.

The Manual of contract documents for highway works: Volume 1 Specification for highway works (Highways Agency, 1998 plus a series of amendments 1998-2007) gives advice on the use and management of soil on highway schemes.

Air

As a remote rural landscape the North Pennines enjoys very high air quality. Airborne pollutants, and particularly dust, can be produced by activities such as mineral extraction and processing, or by the construction phases of other forms of development. Emissions from the site can have localised impacts on the quality of life of nearby residents or on biodiversity, but can often be significantly reduced by following a few simple principles. **ADD EA Regulatory role plus LPA role**

Guidelines: Air

- Assess the potential impacts of the proposals on air quality and use it to inform the design process.
- Locate operations likely to create dust carefully – in sheltered positions and away from dust-sensitive areas.
- Maintain plant regularly to minimise exhaust emissions. Install & maintain dust suppression equipment where necessary
- Suppress dust on construction tracks and haul roads through the use of water bowsers, or use hard surfacing where appropriate.
- Provide facilities for cleaning vehicles leaving the site to reduce dirt on roads and sheet vehicles carrying dusty loads.
- Keep the site green – seed bare ground and soil storage mounds with native grasses where possible.
- Reduce or suspend potentially dust-creating operations in windy conditions.
- Don't burn waste.

Water

Water plays a very important role in the landscape of the North Pennines, which is a major catchment area for the water supply of both its own communities and those further afield in the lowlands. Our moorlands and farmlands also provide a role in regulating the flow of water through the catchment, helping to both replenish ground waters and reduce the impact of flooding downstream. Water quality

throughout the North Pennines is generally very high, although with some localised problems associated with old mineral workings.

Development can have adverse impacts on the water environment in a number of ways. It can damage or impair the function of natural hydrological features – rivers and streams, ponds, springs, blanket bog, flood plains. It can reduce the permeability of the land which increases the volume and rate of water flowing from the site. The site may produce sources of pollution or sediment either during its operational or construction phases. Development also brings opportunities to create new wetland or green infrastructure features that improve the water environment.

The Environment Agency is the principle regulatory body for water and has prepared River Basin Management Plans for each River Basin District. The North Pennines falls within the Northumbria and Solway Tweed River Basin Districts. The Agency also has statutory responsibility for flood management and defence. Regional Planning Bodies produce Regional Flood Risk Assessments (RFRA). LPAs produce Strategic Flood Risk Assessments (SFRA) of their areas and set out policies in LDDs for the allocation of sites and the control of development which avoid or manage flood risk reflecting the approach set out in Planning Policy Statement 25: Development and Flood Risk. LPAs may also require site-specific Flood Risk Assessments (FRAs) to be carried out by developers and submitted with planning applications in areas of flood risk identified in the plan.

The impacts of development on the water environment can be reduced by following some simple principles.

Guidelines: Water

- Assess the potential impacts of the proposals on hydrology and water quality and use it to inform the design process.
- Avoid activities that will interfere with local watercourses, wetlands, blanket bog, wetlands, springs and aquifers.

- Avoid inappropriate development in flood risk areas.
- Have regard to the topography of the site and use it to develop layouts that reduce run-off.
- Minimise the amount of water leaving the site by using sustainable urban drainage schemes (SUDS) - porous surfaces, infiltration strips, swales and balancing ponds. Try to mimic the surface water flows that existed before the site was developed
- On engineering or construction sites, minimise the amount of water entering the site using interceptor ditches where necessary.
- Identify opportunities for biodiversity through the creation of new permanent or seasonal wetlands.
- Keep an inventory of all potentially hazardous materials on site and have an action plan in place to deal with spillages.
- Locate storage areas for fuels, lubricants and chemicals well away from watercourses, wetlands, lagoons and drainage ditches. Provide bunded enclosures around tanks and storage areas – inspect and maintain regularly.
- Use settlement lagoons, silt and oil interceptors to remove suspended solids and pollutants. Use reed beds where appropriate to condition water leaving the site.
- Monitor the quality of water discharges regularly and suspend any that fail to comply with conditions.

Further information

The Building Regulations Approved Document H provides guidance on the use of sustainable urban drainage systems (SUDS). Detailed guidance on SUDS design, construction, operation and maintenance can be found in CIRIA publications C609 (Sustainable drainage systems – hydraulic, structural and water quality advice), C697 (The SUDS manual) and C698 (Site handbook for the construction of SUDS).

Guidelines: development

This section gives guidance for planners and developers on mitigating the impacts characteristic of specific types of development and should be read in conjunction with the more general guidance on protecting environmental resources given in the preceding chapter.

Minerals and waste

The landscape of the North Pennines AONB has been heavily shaped in places by the extraction of its rich mineral resources. Old abandoned lead and fluorspar workings, limestone, sandstone and whinstone quarries are intrinsic to its character and part of its heritage. The continued exploitation of its mineral resources can nevertheless have adverse impacts on its environmental resources, as well as affecting its scenic quality and recreational value.

LDFs and development plans dealing with minerals contain policies on minerals development and LPAs will determine applications based on those policies, and the principles set out in MPS1 in relation to development in nationally designated landscapes.

MPS1 advises that LPAs should not permit major mineral developments in AONBs other than in exceptional circumstances when they have been demonstrated to be in the public interest and subject to rigorous examination. Applications for non-major development need to be carefully assessed, *"with great weight being given in decisions to the conservation of the natural beauty of the landscape and countryside, the conservation of wildlife and the cultural heritage and the need to avoid adverse impacts on recreational opportunities"*. (MPS1.14)

The AONB contains a number of active mineral sites and dormant minerals permissions which are controlled by existing planning conditions or have their planning conditions periodically reviewed.

LDFs and development plans dealing with waste contain policies on waste development and LPAs will determine applications based on those policies. The majority of new waste management facilities such as landfill sites and large transfer stations and materials recycling facilities would be likely to constitute major development and would therefore be subject to national planning policies on AONBs set out in PPS7. They would also need to be rigorously examined and only permitted in exceptional circumstances. Smaller scale development such as new

or extended sewerage treatment works, household waste recovery centres and recycling facilities will need to be carefully assessed in terms of their impacts on the special qualities of the AONB. The restoration of some mineral sites can involve the importation of waste materials provided for under existing permissions and licences.

Impacts

Mineral extraction and waste operations can affect the AONB in a number of ways.

- Natural topography or important geological exposures can be damaged temporarily or permanently.
- Mature landscape features – hedges, walls, trees – can be lost
- Important wildlife habitats can be damaged directly or indirectly.
- Protected species can be disturbed.
- Historic features, including archaeological remains, can be lost.
- Access routes can be closed or diverted.
- The rural character of the landscape can be eroded by the presence of industrial features - extraction faces, stockpiles and screening mounds, buildings and processing plant.
- The tranquillity of the countryside can be weakened by noise and light pollution and by increased levels of lorry traffic on local roads.
- Local distinctiveness can be weakened by insensitive restoration.
- New wildlife habitats can be created, or the management of existing habitats improved.
- New features of geological interest can be created.
- The appearance of old or existing mineral workings can be improved or their restoration secured.
- New access routes, and new features of public interest can be created.

Many of these adverse impacts can be avoided or reduced, and positive benefits enhanced, by following the guidelines below.

Guidelines

- Avoid damage to locally important topographic features like scarps, scars, stone bands, limestone pavements, spurs, ridgelines and natural watercourses.
- Avoid the loss of, or damage to, habitats of nature conservation value; retain them where possible and protect and manage them throughout the operation of the site.
- Avoid the loss of, or damage to, mature landscape features – hedges, walls and veteran trees; retain them where possible, and protect them from site operations.
- Where preservation of existing features in situ isn't possible, consider translocation to suitable receptor sites or salvage of material (walling stone, gateposts, seed, hay or other plant material) for use in restoration.
- Preserve features of archaeological value or historical interest in situ where possible & protect them from site operations.
- Avoid pollution to watercourses & ground water and aerial pollution in the form of dust or plant emissions.
- Avoid visually prominent extraction areas & orientate working faces to minimise their visibility. Avoid breaching local skylines. Minimise the area disturbed at any one time through phased working and restoration.
- Construct screening & storage mounds with naturalistic profiles and blend them with the surrounding topography. Avoid intrusions into local skylines. Seed visible mounds with native grasses where possible and keep the sward green & short through regular cutting or grazing.
- Locate operational plant to minimise its visibility – where it is visible, choose colour carefully to minimise intrusion.

- Look outside of the site for opportunities to mitigate its impacts through off-site planting where appropriate, field boundary restoration, or enhanced management of wildlife habitats and heritage sites.
- Develop a Biodiversity Action Plan for the site. Monitor its biodiversity systematically and look out for the development of new habitats of value, or new species exploiting the site, and manage accordingly.
- Restore the site in a manner which minimises its impacts on the local landscape. Restore to naturalistic landforms where possible; use restoration blasting to replicate natural rock exposures; re-instate smaller scale micro-relief.
- Restore the site in a manner which maximizes its biodiversity. Create new BAP priority habitats and cater for BAP priority species.
- Restore where possible through natural regeneration and particularly on bare rock & scree and low fertility substrates – avoid excessive tidiness and particularly within the less visible parts of the site.
- When planting or seeding is necessary use locally native species (see Tree and Shrub Planting) and make sure plant material is of appropriate local or regional genetic origins.
- Retain important geological exposures in the restoration of the site and provide for access to them.
- Provide for both a high quality of aftercare and the long-term management of habitats and features.

Further information

TBC – restoration to nature conservation publications, landform replication publications, MPG

Telecommunications

Modern telecommunications are important to the economic future of the AONB and particularly for home working, micro-businesses, tourism and marketing. They

are also important to the quality of life of its rural communities. The character of the AONB landscape is, however, particularly vulnerable to the impacts of telecommunications masts and their associated infrastructure.

Planning permission is permitted by national legislation for certain types of telecommunications development, in some cases on the condition that the operator submits an application for 'prior approval' to the LPA. This allows the LPA to consider the siting and appearance of the proposed installation but does not allow it to consider the principle of the development. For masts over 15 metres in height, or where telecommunications equipment including antennas or equipment boxes are proposed in conservation areas and sites of special scientific interest, full planning permission is required.

LDFs and development plans contain policies on telecommunications, and LPAs will determine applications based on those policies and the principles set out in PPG8 which advises that proposals within AONBs should be sensitively designed and sited and that the developer must demonstrate that there are no suitable alternative locations.

Section 85 of the Countryside and Rights of Way Act 2000 (AONBs) requires that relevant authorities (which include telecommunications operators, OFCOM, the Ministry of Defence and broadcasters) have regard to the purposes of AONBs when exercising any functions that affect them. The Government's expectations of relevant authorities are set out in a DEFRA guidance note, Duties on relevant authorities to have regard to the purposes of National Parks, Areas of Outstanding Natural Beauty (AONBs) and the Norfolk and Suffolk Broads (2005) which is available on the DEFRA website: www.defra.gov.uk

A Joint Accord exists between the Association of National Park Authorities (ANPA), The National Association of AONBs (NAAONB) and major mobile phone network operators. The purpose of this Accord is to protect the special qualities of our finest landscapes while making the best possible provision for telecommunication services. In seeking to achieve their respective objectives:

- The operators recognise their obligations to protect the special qualities of the national parks and AONB's.

- The two associations recognise the obligations upon the operators to provide as consistent a service as possible in all parts of the countryside, including the protected areas.
- The main principles of the accord are that:
- Operators will encourage local planning authorities to involve AONB Partnerships on roll out plans and individual planning applications.
- AONB Partnerships will be involved in pre-application discussions.
- AONB Partnerships and operators will share best practice on design and technological advancements that help to reduce the impact of masts on the natural landscape
- A national forum will be established to review progress at least annually.

Impacts

Telecommunications infrastructure can affect the AONB in a number of ways.

- The presence of masts and infrastructure can erode the wilderness experience of the AONB's moorland landscapes.
- Masts can detract from clean sweeping skylines that are otherwise free of vertical structures and focal points.
- Masts and infrastructure can have an 'industrial' character out of keeping with the rural landscape.
- Construction can impact upon sensitive habitats or archaeology.
- Development can detract from the character or setting of listed buildings, conservations areas and scheduled monuments.
- Overhead cables and service poles can add visual clutter to the urban or rural environment.

Many of these adverse impacts can be avoided or reduced by sensitive siting and design.

Guidelines

- Consider the design of the network as a whole and choose options that have the lowest overall impact.
- Consider using networks of smaller, lower impact, masts on enclosed low ground rather than single tall masts on open high ground.
- Use advances in technology or developments in the network to rationalise equipment: remove redundant, prominent or intrusive elements.
- Share masts unless this leads to unacceptable levels of clutter on an individual mast. Avoid bulky head frames.
- Share low impact sites but avoid adding to the impact of prominent sites.
- Use existing buildings and structures where possible to support or contain antennas and equipment: take care not to compromise their existing architectural character.
- Choose locations within settlement boundaries where possible to help assimilate the mast and reduce the impact of ancillary development; access tracks, security fencing etc
- Avoid skyline locations and particularly high ridges.
- Avoid locations within the moorland ridges and summits, and moorland plateau.
- Choose locations where topography, buildings or vegetation form a backdrop and particularly in views from sensitive or well-used viewpoints.
- Locating masts within or adjacent to existing woodland or tree groups can help assimilate the mast and screen low-level clutter: avoid damage to ancient or semi-natural woodlands.
- Avoid open locations. In open landscapes locate masts close to existing farm building clusters or tree groups.
- Avoid damage to sensitive habitats or archaeological features.
- Avoid locations that impact on the setting of sensitive buildings.

- Choose locations close to existing roads or access tracks to reduce the need for new tracks. Detail any tracks appropriately to reduce their impact (see Roads and Tracks below).
- Use monopoles where possible and modern slim-line lattice towers for taller structures. Replace older structures with these where possible.
- Use non-reflective surface treatments. Colour for both masts and plant should be informed by the backdrop: light or mid-greys for features seen against the sky and recessive browns and olive greens for features seen against rising ground.
- Where existing lighting columns are present – in urban or roadside locations - choose detailing and colour to match these.
- Equipment at the base of the mast should be kept to a minimum, undergrounded where possible, or screened by existing features – trees, hedges, walls or buildings.
- Security fencing should be avoided where possible or screened by existing features or new native tree planting. In open situations low gently profiled earth mounding seeded with native grasses, will be more appropriate.
- Consider novel approaches such as disguising monopoles as standard timber service poles but avoid incongruity. An honest use of materials is generally more in keeping with the AONB than ornamental or ‘artificial’ design.
- Underground services where possible and particularly in open locations. Reduce the visual clutter of existing cable services by undergrounding.

Further information

A Joint Accord between the ANPA, the NAAONB and major mobile phone network operators can be found on the NAAONB website. www.aonb.org.uk

Renewable Energy

The development and deployment of renewable and low carbon energy technologies is an important component of the Government's approach to combating climate change as set out in the UK Renewable Energy Strategy 2009. The AONB has the potential to contribute to this process by utilising its renewable resources where this can be done in a manner which is compatible with the purposes of its designation.

LDFs and development plans contain policies on renewable energy development, and LPAs will determine applications based on those policies, the principles set out in PPG22, and SPDs like the Cumbria Wind Energy SPD.

PPS22 advises that planning permission for renewable energy projects in AONBs should only be granted where *"it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits"*.

It requires that Regional planning bodies and local planning authorities should set out the circumstances in which *"...particular types and sizes of renewable energy developments will be acceptable in nationally designated areas"* and goes on to state that *"...small-scale developments should be permittedprovided that there is no significant environmental detriment to the area concerned"*.

The two regional spatial strategies covering the AONB both take a similar approach to this issue, NWRSS stating that *"small scale developments may be permitted in such areas provided there is no significant environmental detriment"* and NERSS stating that *"Small scale developments should be considered favourably... if they have minimal impact, individually or cumulatively on the special qualities and purposes of the designation of these areas"*.

NERSS is more specific about what constitutes small scale development in respect of wind energy stating that *"the development of one or more turbines or a turbine with a ground to hub height of 25 metres or more is unlikely to be acceptable"*. This criterion is the same as that contained in saved policy R45 of the Cumbria and Lake District Joint Structure Plan which states that *"wind schemes requiring more than one turbine or a turbine with a ground to hub height of 25 metres or more is unlikely to be acceptable"*.

The AAONBs position statement on renewable energy also distinguishes between larger or commercial scale developments, which in respect of wind energy and hydro-electric development it considers would constitute 'major development' which would be incompatible with the purposes of designation, and smaller scale developments which may be acceptable where they would not be to the detriment of the natural beauty, character, amenity and/or nature conservation interest of the AONB.

England's AONBs vary in their character and therefore vary in their sensitivity to different forms of development. The North Pennines AONB is 'England's last wilderness'. Conserving the 'wildness' and remoteness of its landscape is fundamental to the purposes of its designation. This wildness, coupled with the openness of the landscape and high degree of intervisibility across the high ground of the AONB where much of the wind resource lies, makes it highly vulnerable to the impacts of commercial scale wind energy development. The naturalness of its watercourses and the quality of its dale floor landscapes makes it equally vulnerable to large new hydro-electric development other than in association with existing reservoirs and water supply infrastructure. The rural character of the landscape, its visual openness, and the lack of large scale industrial buildings also makes it vulnerable to the impacts of larger scale biomass plant.

In the current policy environment it is unlikely that large commercial scale wind energy, hydro-electric or biomass development within the AONB would be considered to be acceptable and consistent with PPS22. Smaller scale developments will be supported provided that their impacts on the special qualities of the AONB are not significant.

These Planning Guidelines do not therefore deal with large commercial scale development other than in relation to the impacts on the AONB of development outside of its boundaries which are dealt with in the section *Development outside of the AONB*.

Impacts

Renewable energy development can affect the AONB in a number of ways.

- The presence of wind turbines and associated power lines can erode the wilderness experience of the AONB's moorland landscapes.
- Turbines and power lines can detract from clean sweeping skylines that are otherwise free of vertical structures and focal points.
- The movement of turbine rotors can be visually distracting and detract from the tranquility of the landscape, as can noise.
- Sensitive habitats or archaeology can be damaged by the development, or by construction works or associated infrastructure, as can protected species.
- The natural quality of watercourses can be eroded by the development of artificial river engineering, generating plant or associated infrastructure.
- Larger scale structures – wind turbines, biomass plant and chimneys – can be out of scale with their surroundings.
- Buildings and structures of an 'industrial' character can be out of keeping with the rural character of their surroundings.
- Development can detract from the character or setting of listed buildings, conservations areas and scheduled monuments.
- The infrastructure required for energy projects – substations, overhead cables and service poles can add visual clutter to the landscape.
- Increased traffic associated with biomass may affect the character, condition or recreational value of rural roads.
- Emissions from energy plant in the form of steam or pollutants may affect the visual environment or sensitive habitats.
- Demand for biomass may put pressures on existing sensitive woodland resources or bring pressure for land-use change.
- Demand for biomass may provide local markets for wood fuel and stimulate the management of neglected woods and the planting of new woods.
- Renewable energy development may provide opportunities to interpret the natural resources of the AONB.

- Onsite renewables may assist in the re-use and renovation of redundant buildings, particularly those that are off-grid.

Many of the adverse impacts can be avoided or reduced by sensitive siting and design.

Guidelines

Small scale wind energy development

- Avoid locating turbines within the moorland ridges and summits, and moorland plateau landscapes generally.
- Avoid elevated sites where there are acceptable alternatives on lower ground.
- Avoid locating the turbine on prominent or locally significant landforms like ridgelines, hill tops and knolls.
- Avoid open locations for wind turbines. In open landscapes locate turbines close to existing features - farm buildings or tree groups.
- In choosing a location for a turbine make the best use of local topography, buildings or woodlands to screen it from sensitive viewpoints – roads, settlements and public rights of way.
- Avoid locations for turbines which intrude into clean or locally important skylines. Choose locations where rising ground or vegetation forms a backdrop and particularly in views from sensitive or well-used viewpoints.
- Select the size of wind turbine based on the needs of the primary user and the capacity of the local landscape rather than seeking to maximize output.
- Where possible the height of towers should relate to the height of existing vertical elements in the landscape such as service poles, trees, buildings and other structures
- Select turbine models of a simple form and graceful appearance: three bladed horizontal axis turbines and some vertical axis models usually have a more balanced appearance than twin bladed models.

- Avoid locations for turbines that may pose a threat to bats or birds: take specialist advice.
- Avoid physical damage to sensitive habitats or archaeological features.
- Avoid locations that impact on the setting of sensitive buildings and conservation areas.
- Choose locations close to existing roads or access tracks to reduce the need for new tracks. Detail any tracks appropriately to reduce their impact (see Roads and Tracks below).
- Colour should be informed by the backdrop: light or mid greys are generally best for features seen against the sky and recessive browns and olive greens for features seen primarily against rising ground.
- Use non-reflective surface treatments.
- Underground services where possible.
- Accommodate any ancillary plant in existing buildings where possible. Design any new buildings to look like traditional farm buildings.

Small scale hydro-electric development

- Consult the Environment Agency and Natural England at a very early stage in the process.
- Consider the re-use of sites where water-power has been harnessed in the past and particularly where this can help restore historic or redundant features.
- Avoid sites that require significant modification to natural watercourses, or to natural gill or river bank topography.
- Avoid hillside sites like steep gills in open country.
- Avoid sites that would entail damage to sensitive habitats or archaeological features.
- Keep the footprint of engineering operations as small as possible. Restore any areas disturbed using native grasses and native trees and shrubs where appropriate.

- Observe bio-security precautions to avoid any invasive species being introduced on plant or machinery.
- Time operations carefully to avoid impacts on sensitive species such as spawning fish and nesting birds.
- Design intakes and tailraces sensitively to minimize their physical and visual impacts: use natural materials in their construction where possible.
- Bury pipelines taking care to avoid damage to important vegetation. Restore the route as quickly as possible using existing soil materials.
- Where pipelines bypass waterfalls ensure that abstraction rates don't adversely affect them: if necessary abstract only during hours when the effects are less apparent.
- Use existing buildings where possible for the turbine house.
- Where a new building is required either follow the style and materials of local vernacular buildings or use innovative approaches like green roofs and natural materials to blend it into the landscape.
- Design-out the need for security fencing. Where fencing is unavoidable ensure that it is designed to have a low visual impact or is effectively screened by vegetation from public vantage points.
- Underground services where possible. Keep connections to the grid as short as possible using or sharing existing service lines where possible.

Small – medium scale biomass development

- Small scale biomass installations should utilize existing buildings where possible. For new buildings or structures see the Building Design Guide.
- Medium scale biomass installations may require buildings analogous in scale to larger agricultural buildings: for advice on siting and design see the Building Design Guide.
- Choose locations that are within the fabric of settlements or on existing industrial or mineral sites.

- Greenfield locations should only be considered in exceptional circumstances. Choose locations that are naturally well screened from public vantage points by existing topography and woodland.
- Avoid locations where the chimney will be prominent and particularly where it will breach local skylines.
- Use colour to break up the mass of the building and the impact of the chimney: see the Building Design Guide for advice.
- Storage and service areas can be visually intrusive. Choose locations that are well screened from public vantage points. Consider undergrounding or partial undergrounding of storage pits.
- Follow the guidelines on noise, light, air and water in the Environmental Resources section.
- Underground services where possible. Keep connections to the grid as short as possible using or sharing existing service lines where possible.
- Manage traffic flows to the site to reduce impacts on local roads.

Further information

Further advice on renewable energy in relation to buildings can be found in North Pennines AONB Building Design Guide.

The AAONBs position statement on renewable energy can be found on the AAONB website: www.aonb.org.uk

Further advice on planning for renewable can be found in Planning for Renewable Energy: a Companion Guide to PPS22 which is available on the Communities and Local Government website www.communities.gov.uk

Roads and tracks

Guidelines

Further information

Agriculture, farm diversification, equine related activities

Guidelines

Further information

Tourism and leisure

Guidelines

Further information

Development outside of the AONB

In some circumstances development outside of a nationally designated area can have impacts on the special qualities that form the basis of its designation and underlie its purpose. In those cases the potential impact on the designated area will be a material consideration to be taken into account in determining planning applications.

This principle is enshrined within many existing development plan policies dealing with the AONB which consider both development within the AONB, informed by PPS7 21-23, and development 'affecting' the AONB as an additional criterion.

In respect of wind energy development PPS22 states that *"Regional planning bodies and local planning authorities should not create "buffer zones" around international or nationally designated areas and apply policies to these zones that prevent the development of renewable energy projects. However, the potential impact on designated areas of renewable energy projects close to their boundaries will be a material consideration to be taken into account in determining planning applications"*. PPS22 14

It is beyond the scope of this document to deal exhaustively with all of the potential effects on the AONB of development outside of it, which could include a very wide range of direct, indirect and secondary impacts. The focus of this guidance is on direct impacts. The key issue for development is the extent to which its effects impact upon the special qualities of the AONB. While biodiversity and cultural

heritage contribute to those special qualities, impacts on those resources are likely to be dealt with under other policies in development plans and LDFs, rather than be considered in terms of impacts on the special qualities of the AONB. The most significant category of impact likely to affect the AONB, where the special qualities of the AONB are likely to be central to the discourse, is landscape and visual impact.

Landscape and visual impact

The extent to which the landscape and visual impacts of development affect the special qualities of the AONB will depend on the visual characteristics of the development and the visual environment of the receptor. It is useful to distinguish between views which are effectively 'views out from' the AONB, 'views within' the AONB, and 'views of' the AONB

Views out from the AONB are those which are across, or of, a different landscape. There are many vantage points either on elevated ground or on the edges of the AONB where there are commanding panoramic views across adjacent landscapes which are of a clearly different character, and where development would rarely be considered by a typical viewer to affect the landscape of the AONB itself. Exceptions might be views of acknowledged importance to other significant landmarks such as, for example, views from the western summits of the AONB towards the peaks of the Lake District National Park.

Views within the AONB are those which primarily take in the landscape of the AONB itself. In some cases other landscapes may be visible as part of that view, although a typical viewer might not be able to discern any differences in character of the distant landscape and it remains functionally 'part of' that interior view of the AONB. In some cases development in an adjoining area can detract from such interior views, for example wind turbines on a distant ridge may be visible from well within the AONB, affecting the character of interior views of the AONB landscape.

Views of the AONB are views from other landscapes in which the AONB features in the view. This type of view varies from those where the AONB is visible as a muted backdrop but has no special significance to a typical viewer, to those where the visible parts of the AONB are an important, even iconic, part of the view. An example of the former is views from parts of the Wear Lowlands where the eastern

fringes of the AONB are empirically visible but generally indistinguishable in character from the high ridges of the intervening West Durham Coalfield. An example of the latter is views from the Vale of Eden of the great western escarpment of the North Pennines where it could be argued that it is in views such as these that this part of the AONB landscape is best appreciated. Development can detract from exterior views at this end of the spectrum, and particularly if it effects individually important viewpoints.

In practice it can be difficult to draw a precise line between these different types of view. The AONB boundary is rarely reflected in a sharp change in landscape character or quality on the ground, or one which is readily apparent to the typical viewer. Some views across the AONB towards other parts of the AONB take in non-AONB landscapes in between, for example views across the lower parts of Weardale and Teesdale, and views across Hamsterley Forest. The distinction does remain, however, a useful way of structuring any assessment of landscape and visual impacts on the AONB.

The magnitude of any impact will depend in part on the visual characteristics of the development. The visual effects of mineral extraction and most forms of built development attenuate fairly quickly with distance. Both tend to present at distances of over 3 - 5km as relatively small, low and horizontal elements of muted colour which are rarely conspicuous in views out from, or within, the AONB beyond distances of that order.

Tall structures like telecommunications masts, and particularly wind turbines, can have more significant impacts in these views as they are discernible at considerable distances in favourable weather conditions, typically project above the skyline, and can stand out in their colour in the otherwise muted earth tones of the landscape. In the very simple, open horizontal landscapes of most of the Pennine moors, where man made features and vertical elements are rare, wind turbines can have greater impacts at further distance than in more visually complex lowland landscapes. This can have consequences for the perceptions of the landscape as wild and remote which are fundamental to the purposes of the AONB designation.

Coming to conclusions on the overall significance of a development's impacts on the special qualities of the AONB can be difficult. Ultimately this will be informed by the degree to which the development would have significant impacts on views within the AONB, and individually important views of, or from, the AONB. The extent of this impact in terms of the scale of the area or number of viewpoints affected will be a consideration, but care should be taken not to express this as a 'proportion' of the AONB. The North Pennines AONB is the largest AONB in England and all of its landscapes are important.

The cumulative effect of otherwise individually acceptable development is a key issue for the AONB. Particular care must be taken to avoid a piecemeal erosion of its special qualities. Development around the AONB can lead to the establishment of demarcations in the landscape between the AONB and its surroundings that otherwise would not exist. Piecemeal erosion of the sense of remoteness and wildness in the margins of the AONB can reduce the extent of the area over which such qualities can be appreciated.

Guidelines

- Avoid locations for development that would have significant impacts on views within the AONB, and important views from or of the AONB.
- Assess the landscape and visual impacts of development on the AONB thoroughly.
- For wind development assess impacts from important and representative viewpoints in the AONB up to the limits of visibility– typically around 25 – 30 km.
- Assess cumulative impacts on the experience of the AONB as a whole and not just in terms of individual and sequential views along linear routes.

Further information

Mitigation

Guidance on mitigation. No net harm approach. Use of planning obligations.

Guidelines

Further information

Guidelines: detail

Protecting features on development sites

Query: need to expand this to cover other features / habitats?

Mature trees and shrubs are always an environmental asset, but particularly so in the North Pennines where growth rates are low and shelter from the elements is at a premium. Rather than being ignored or treated as obstacles on a development site they should be conserved where possible and integrated into the design.

Trees are protected by law in many circumstances. They may be covered by a Tree Preservation Order, a planning condition or a restrictive covenant. In Conservation Areas certain works to trees, including felling, require notification to, and consent from, the local planning authority. Before planning any work that involves a tree you should consult your local planning officer. Further information on trees and the law is given in Appendix 5.

Protecting trees on a development site takes careful surveying, planning and management. The procedures for doing this are set out in the British Standard BS5837:2005 Trees in Relation to Construction. This sets out the need for detailed survey, the development of a Tree Constraints Plan (TCP) and a Tree Protection Plan (TPP). You may need to engage a landscape architect or arborist to assist in this process. Local Authority Planning teams can also offer advice. A detailed survey, TCP and TPP are normally required to accompany a Planning Application.

It is an offence under the hedgerow Regulations (1997) to remove most types of rural hedgerow without first notifying the relevant local authority. The regulations do not apply to works covered by a planning consent. When in doubt, seek the advising of your local planning officer.

Mature trees and shrubs that are to be retained as part of the development will need be fully protected in the development phase from such factors as physical damage or soil compaction by vehicles or storage of materials. This usually entails protective fencing around a root protection area. Advice on where to go for further information on protecting mature trees and shrubs is given at the end of this section

Tree and shrub planting

Trees and shrubs can make an enormous contribution to both the quality of new development and the extent to which it is assimilated into its setting. The need or potential for new planting will vary between developments.

Where there is a need to screen large buildings or unsightly operational areas perimeter screening belts may be required. It is important that these are designed appropriately so as not to become alien features in their own right. There is little point trying to hide an ugly building with an ugly or conspicuous shelterbelt. Try to design these as 'small woodlands' that fit into their surroundings. Avoid creating narrow linear features that run against the grain of the topography or geometric blocks that stand out from their surroundings. Pick up any nuances of the landform in drawing the woodland boundary and, where space allows, scallop the woodland edge to break up its outline and create areas of complementary habitat like rough grassland. Always take advice on the existing biodiversity or archaeological value of potential planting sites and avoid planting on sensitive areas.

New trees should be planted with careful thought to their mature height and spread including a respect for the vigour of the root systems which can cause disturbance to the foundations of boundary walls, to path surfaces and drains if adequate space is not allowed. Taking specialist advice from a landscape architect or forester will help you avoid these pitfalls and deliver a well-designed and cost-effective scheme.

In exposed upland landscapes like the North Pennines trees grow slower than in the lowlands. Robust planting areas give more shelter to the young trees in the short term and to the building in the longer term. Narrow shelter belts that grow into rows of wind-sculpted 'lollipop' trees have little value as screening or shelter.

Whether planting for shelter or screening it is important to plant species native to, or characteristic of, the locality. Native species already have a strong presence in the landscape – from ancient woodlands to abandoned quarries – and are well adapted to the conditions found here. In addition to simply 'looking right' in the landscape they have a much higher biodiversity value than most imported species.

Woodland types particularly characteristic of the North Pennines include oak and oak-birch woodlands on acidic soils and ash and alder-ash woodlands on limestones. Many woodlands contain a mixture of these different types due to the rapidly alternating rock strata typical of the North Pennines. Species should be chosen to reflect the composition of native woodland types best suited to the underlying geology, soils and drainage of the site.

Native woodland types suitable for larger planting schemes

Upland Oak and Oak Birch woodlands

Suitable for planting on acidic soils.

Planting mixtures should be dominated by Downy Birch and Sessile Oak with smaller numbers of Rowan, Holly and Hazel. On poorer soils and exposed sites the proportions of Hazel and Holly should be reduced and Birch increased.

Upland Ash and Alder-Ash woodlands

Suitable for planting on base-rich soils over limestone or flushed fertile slopes in the valley bottom.

Planting mixtures should be dominated by Ash and Hazel with smaller numbers of Downy Birch, Sessile Oak, Rowan, Holly, Bird Cherry, Hawthorn, Elder, Goat Willow and Grey Willow. On wetter sites Common Alder should be the dominant species.

On exposed sites a high proportion of hardy 'nurse' species like downy birch or common alder (on wet ground) can be used and thinned out in later years. On more sheltered or fertile sites planting mixtures should have a high proportion of under-storey shrubs to make them both more visually dense and increase their shelter value. The woodland edge can be particularly rich in smaller native trees and shrubs which can be chosen for the decorative (and wildlife) value of their flowers and berries.

In addition to native species there are a number of imported species with a long association with the area and a strong presence in the landscape. These include:

- non-UK natives (Sycamore, Larch);
- UK natives not native of the North Pennines (Beech);
- former natives that have long disappeared from the area and have since been re-introduced (Scots Pine); and
- ornamental species often planted in parks and village greens (Common Lime, Horse Chestnut)

All of these species have their place in the landscape but some should be used with caution in shelter planting. Beech and Sycamore are very wind-hardy but both cast a dense shade which suppresses the shrub layer and ground flora leading in later years to tree belts with little low-level shelter and little biodiversity. A group of wind-swept sycamores beside an isolated farm may be an iconic image of the North Pennines, but they could also represent a mistake our grandfathers made that they never got a chance to learn from and which we aren't doomed to repeat. Scots Pine and Larch can also behave in the same way in narrow belts although both can be a useful nurse crop in a mixed plantation on a poor site.

When planting belts or blocks of trees it is always advisable to use small plants – 2 year old transplants, 'undercuts' or whips – rather than larger standard trees which will often be slow to establish and particularly in exposed situations. Small plants are much cheaper and will usually overtake larger stock in a very few years. Shelter from the elements and protection from livestock and rabbits are often critical to success in the North Pennines as is weed control in the early years. Information on sources of detailed advice on tree planting techniques can be found at the end of this section.

When planting individual trees close to buildings or in gardens and public spaces there are many smaller native trees and shrubs that are suitable for the task. Planting local natives can help link the development visually with the wider landscape and express the distinctive upland character of the area.

Selecting the correct site for planting is critical and the following considerations should be taken into account:

Smaller native trees and larger shrubs suitable for planting in urban situations.

Downy Birch
Silver Birch
Rowan
Bird Cherry
Hazel
Holly
Crab Apple
Guelder Rose
Blackthorn
Hawthorn
Juniper

- The ultimate size of the tree.
- The proximity of buildings, other structures and any underground or over ground services such as telephone and electricity supply cables.
- The potential to obscure any road sightlines or road signs. This can prove hazardous to road users and pedestrians.
- Trees with heavy leaf fall, such as horse chestnuts, should avoid being located near roads, car parks and footpaths where slippery conditions could be dangerous. These trees should also be kept away from gutters and drains.
- Trees such as limes and sycamores which are affected by sugar secreting aphids should also be avoided in car parks or near seating areas.

Trees grow and obstruct daylight. Choose species carefully and do not plant in close proximity to windows. Trees can cause structural damage to buildings if they are blown over, most structural damage being caused by the heavier lower limbs and trunks. To avoid concern, trees should be planted no nearer to a dwelling than two thirds of their mature height.

Most tree roots grow in the top 60cm (2 ft) of the ground. The pattern of root development varies greatly between species. As a general rule, roots will spread considerably further than the canopy will extend. Tree root growth is only capable of exerting a comparably small force, however this may cause small structures with no foundations - drives, paths, patios and garden walls - to be moved or distorted. Roots are opportunistic and will grow to exploit moisture and nutrients. Fine roots can penetrate minute cracks and joints in drains.

Selecting the right species for planting takes some care and will depend on the physical conditions of the site (soil type, drainage, exposure) and the space available for the trees eventual height, crown size and root spread. Some species are intrinsically unsuitable for planting close to typical domestic buildings because of the invasive, shallow, or long-reaching characteristics of their root systems. Varieties of willow, apple, cherry, plum, poplar and large conifers varieties such should be used with caution. As a simple rule, they should be planted no nearer than one and a half times their potential height from drains or walls. Information on

sources of detailed advice on tree planting techniques can be found at the end of this section.

Guidance on ornamental planting in gardens and public open space is beyond the scope of this document. It should be noted, however, that the design of ornamental planting can help reinforce the 'natural' and 'upland' character of the North Pennines if it takes its inspiration from the natural vegetation of the area. Schemes using native heathers, junipers and hardy ferns for example rarely look out of place.

Boundaries and openings

Walls

Stone walls are a key feature of the North Pennines landscape. Often the stone used in their construction comes from the same quarries as the finer dressed stone of the buildings, sometimes coming from the thinner or more weathered strata.

The craft of stonewalling is still very much in evidence in the North Pennines and though it is a slow and relatively expensive form of construction, the stone wall proves a durable investment. Many of our gardens today shelter within walls built in the 18th and early 19th centuries which have required or received almost no subsequent repair.

Conserving and repairing existing dry-stone walls in and around the development site, and building new walls of an appropriate character, can help assimilate new development into its surroundings and make a positive contribution to the character of the area. In doing so it is important to use local walling styles and materials where possible.

There is considerable variety in the character of walls in the North Pennines, which may reflect their age, local walling styles, or the different types of stone available for their construction. Older walls, or those built near rivers or in areas of boulder clay, may be built with irregular rounded stone from the river bed or stone clearance in the adjacent fields. Later walls, or those built in areas with thinly bedded and readily worked stone, may be constructed of more regular material.

Coarse Carboniferous sandstone is widely used in the North Pennines, as is Carboniferous limestone and red Triassic sandstone where it outcrops along the western scarp. Walls may include other material such as whinstone found in river cobbles or boulders in the glacial clays. In some areas different materials may be combined. For example in the Eden valley earthenware coping stones may be found complimenting red sandstone walls. Closer to Penrith, red sandstone through stones or 'thruffs' can be found reinforcing walls of smaller limestone rubble.

The dimensions of walls vary with the locality as do coping styles which include rough, angular or rounded cope stones stacked vertically, or flat flagstones laid horizontally. Variations of 'buck and doe' coping with alternating larger and smaller or vertical and horizontal stones are common. Coping with turves or sods is found occasionally.

Although it can be difficult today to obtain newly quarried stone from very local sources, there are a number of quarries in the AONB supplying material of an appropriate general type. There is also often a ready supply of salvaged material available through builders or stone-wallers in the area. Stone already present on site should be preserved and set aside for re-use. Stone gateposts in particular are expensive to replace and should always be salvaged.

Boundary walls made in pre-cast concrete blocks are not appropriate in the AONB. Artificial stone is rarely successful and is usually out of character with local stonework. These and many other obviously engineered or artificial products should be excluded from the designer's palette.

Stone walls, particularly dry-stone walls, can be valuable refuges for wildlife and present opportunities for enhancing the biodiversity of a site. The dry conditions provide an ideal habitat for invertebrates, birds, reptiles and small mammals, and also for a wide variety of plants. If local stone (and lime mortar) is used, the plants, lichens and mosses that grow on the wall will reflect local geology and flora and reinforce the sense of local distinctiveness. Walls can also provide shelter for hedges and more fragile planting and assist in initial establishment.

Hedges

Hedges are characteristic boundary features in the more sheltered parts of the North Pennines and particularly the upland fringes and lower dales. Well-maintained hedges can provide screening, shelter and privacy to buildings and gardens as well as valuable wildlife habitat.

Hedges in the North Pennines date from many periods of enclosure including parliamentary enclosures of the C18th and earlier piecemeal enclosures of village fields and wastes from the medieval period onwards. Some of these hedges, and particularly those on ancient parish and township boundaries, may be the oldest continuously used man-made artefacts in the landscape. Protecting hedges on a development site requires the same amount of care as with other forms of vegetation (see above).

Conserving and renovating existing hedges in and around the development site, and planting new hedges of an appropriate character, can help assimilate new buildings into their surroundings and make a positive contribution to the character of the area. In some circumstances hedges can provide a more effective screen than narrow belts of tree planting. It may be much easier to screen a development in views from a road or footpath by planting a hedge alongside the road or track, or allowing an existing hedge to grow taller, than by planting closer to the building itself.

Hedges are living features that need to be managed. In the absence of management they will grow out into a line of leggy bushes and ultimately disappear. Established hedges may need remedial works to bring them back into good condition. This may involve laying, coppicing, or gapping up. This is generally a specialist exercise and advice should be sought from a suitably qualified contractor. Further information on where to get advice on hedgerow management can be found at the end of this section.

In most rural situations, including larger gardens and development plots, new hedgerows should be made up of species which are native to the area and characteristic of its hedgerows. The way hedges are planted can vary according to the locality. Sometimes they are planted directly into the ground, at other times they are planted on raised hedge 'cams' or larger 'hedge-banks'. In some cases

Typical species mix suitable for a new hedge in the North Pennines

Major species

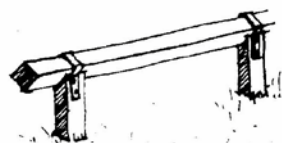
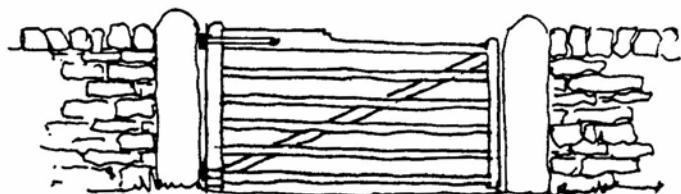
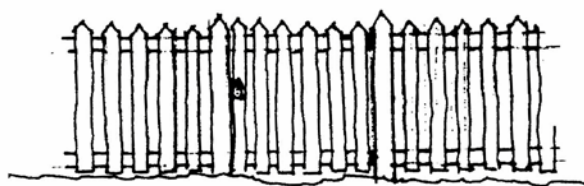
Hawthorn	60%
Blackthorn	20-25%
Hazel	5-10%
Holly	5-10%

Minor species (around 5% in total)

Bird Cherry
Dog Rose
Rowan

Hedgerow trees (around 20m apart)

Sessile Oak
Common Ash



hedge banks may be faced with dry-stone walling on one or two sides. Further information on where to get advice on hedgerow planting can be found at the end of this section.

Fences, Gates and Barriers

Fences are much cheaper to erect than stone walls or hedges. They do not achieve the same visual effect, and are not as durable, but may be particularly appropriate in some situations. Visually light fencing like high tensile wire may be preferred in situations where it is undesirable to draw attention to the line of a new boundary. The use of fencing on new boundaries may allow older boundaries to continue to read as the dominant pattern - for example when subdividing an existing walled field into smaller paddocks.

Various types of fence are common in and around the settlements of the AONB ranging from timber post and rail with vertical palings, to timber posts with wire and netting. Fencing associated with gardens tends to be 'restrained' in character rather than being highly ornamental, and decorative detailing tends to be subtle and low-key. Materials normally associated with urban areas such as metal paling, chain link and close-boarded timber fencing should generally be avoided and particularly in prominent 'frontage' locations.

Elaborate, ornate or high railings and gateways have a suburban quality and should be avoided. Openings and driveways should be in scale with their surroundings. Gates in fences should reflect the style of fence. For gates in stone walls there is more freedom, but timber gates are rarely out of place.

For pedestrian gates, there are some well-tried local types – for example timber gates over a close fitting stone thresh, and with a solid or dense lower panel, which are good for excluding rabbits.

The design and treatment of timber fencing is often an afterthought, but poorly considered timber fences can have a considerable impact and particularly when treated with conspicuous finishes. Highly pigmented, and particularly the more orange dominated, wood stains are a contrast to the dark and subdued finishes used in the past. They should generally be avoided, and particularly for larger scale elements such as fencing.

Sometimes when the need is only to prevent vehicles being driven onto grass a single rail with intermediate posts is sufficient deterrent, or a simple row of stubby posts. Fencing in rural situations fits better with its surroundings if it is functional rather than ornamental. Post and rail fences with horizontal rails are more suitably 'agricultural' in appearance than diamond 'ranch-style' patterns. Plain galvanised netting is preferred over coloured netting which rarely blends with its surroundings even in greens and browns.

Further Information

Further information on landscape detailing - plot edges, trims, borders, paving and wearing surfaces, drainage details –can be found in the Building Design Guide.

QUERY – need to include some of that in this document?

County Durham Hedgerow Partnership Guidelines

County Durham Landscape Guidelines: Trees

County Durham Landscape Guidelines: Hedges

County Durham Landscape Guidelines: Woodlands and Forestry

www.durham.gov.uk

Glossary

Area of Outstanding Natural Beauty

Designated by the Countryside Commission under the National Parks and Access to the Countryside Acts, the primary purpose of which is to conserve and enhance natural beauty.

Cumulative Effects

This is the result of more than one scheme being constructed and is the combined effect of all the developments, taken together. This may be in terms of their effect on landscape and visual amenity, bird populations, other wildlife, the local economy, tourism etc.

Development Plan Document (DPD)

Spatial planning documents that are subject to independent examination, and together with the relevant Regional Spatial Strategy, will form the development plan for a local authority area. They can include a Core Strategy, Site Specific Allocations of Land, and Area Action Plans (where needed). Individual Development Plan Documents or parts of a document can be reviewed independently from other Development Plan Documents. Each authority must set out the programme for preparing its Development Plan Documents in the Local Development Scheme.

Environmental Impact Assessment

The process used for describing, analysing and evaluating the range of environmental effects that are caused by a wind energy proposal.

Landscape Value

The relative importance that stakeholders attach to a landscape for a variety of reasons including scenic quality, perceptual aspects such as wildness, remoteness or tranquility that contribute to a sense of place, rarity, presence and influence of other conservation interests and special cultural associations.

Local Development Framework (LDF)

The name for the portfolio of Local Development Documents. The LDF includes Development Plan Documents, Supplementary Planning Documents, a Statement of Community Involvement, the Local Development Scheme and Annual

Monitoring Reports. Together these documents will provide the framework for delivering the spatial planning strategy for a local authority area.

Local Development Document (LDD)

The collective term for Development Plan Documents, Supplementary Planning Documents and the Statement of Community Involvement.

Local Development Scheme (LDS)

Sets out the programme for preparing Local Development Documents. All authorities must submit a Scheme to the Secretary of State and review the LDS on an annual basis.

Micro-generation

Very small scale power generation schemes, typically providing energy to a single household/office.

Planning Policy Guidance (PPG)

Government statements of national planning policy (being superseded by PPSs).

Planning Policy Statement (PPS)

Government statements of national planning policy (being phased in to supersede PPGs).

Renewable Energy

Collective term for energy flows that occur naturally and repeatedly in the environment. It includes energy derived by the sun, such as wind, solar hot water, solar electric (photovoltaics), hydro power, wave, tidal, biomass, biofuels, and from geothermal sources, such as ground source heat pumps. Energy from waste is not regarded as a renewable energy as it is not capable of being renewed by the natural ecological cycle.

Regional Spatial Strategy (RSS)

Sets out the region's policies in relation to the development and use of land and forms part of the development plan for local planning authorities. Planning Policy Statement 11 'Regional Spatial Strategies' provides detailed guidance on the

function and preparation of Regional Spatial Strategies

Saved Policy

Many existing District Local Plan policies have been saved and being used for the determination of planning applications until replaced in later Development Plan Documents.

Section 106 Agreement

Section 106 of the Town and Country Planning Act 1990 makes provision for a legal agreement between the planning authority and the applicant/developer, and any others that might have an interest in the land. A planning obligation either requires the developer to do something, or restricts what can be done with land following the grant of planning permission. Obligations must be:

- relevant to planning and directly related to the proposed development;
- make the proposed development acceptable in planning terms;
- fairly and reasonably related in scale and kind to the proposed development; and
- reasonable in all other respects.

Statement of Community Involvement (SCI)

Sets out the standards that authorities will achieve with regard to involving local communities in the preparation of Local Development Documents and development control decisions. The Statement of Community Involvement is not a Development Plan Document but is subject to independent examination.

Strategic Environmental Assessment (SEA)

A generic term used to describe environmental assessment as applied to policies, plans and programmes. The European 'SEA Directive' (2001/42/EC) requires a formal 'environmental assessment of certain plans and programmes, including those in the field of planning and land use'.

Supplementary Planning Document (SPD)

Provide supplementary information in respect of the policies in Development Plan Documents. They are included with LDFs but do not form part of the Development

Plan and are not subject to independent examination.

Supplementary Planning Guidance (SPG)

Provide supplementary guidance in respect of the policies in Local Plans, and are being replaced by SPDs.

Sustainability Appraisal (SA)

Tool for appraising policies to ensure they reflect sustainable development objectives. (i.e. social, environmental and economic factors) and required in the Act to be undertaken for Development Plan Documents and Supplementary Planning Documents.

Appendix 1 Contacts

Local Planning Authorities

Northumberland County Council. County Hall, Morpeth, Northumberland, NE61 2EF

Tel: 0845 600 6400

Fax: 01670 511413

Email: ask@northumberland.gov.uk

Website www.northumberland.gov.uk

Durham County Council. County Hall, Durham, DH1 5UL

Tel: 0300 1237070

Fax: 0191 383 4500

Website www.durham.gov.uk

Cumbria County Council. The Courts, Carlisle, Cumbria, CA3 8NA

Tel: 01288 606 060

Email: information@cumbriacc.gov.uk

Website: www.cumbria.gov.uk

Carlisle City Council. Civic Centre, Carlisle, CA3 8QG

Tel: 01288 817000

Email: customerservices@carlisle.gov.uk

Website www.carlisle.gov.uk

Eden District Council. Town Hall, Penrith, Cumbria, CA11 7QF

Tel: 01768 817817

Fax: 01768 890470

Email: customerservices@eden.gov.uk

Website: www.eden.gov.uk

Archaeology

County archaeologists

Local History Societies

Biodiversity

County Ecologists

Natural England

BAP Partnerships

Species groups (BAT / Badger / Bird / Butterfly groups)

Geodiversity

Landscape

Environment Agency

Appendix 2 Saved Policies

TO BE CHECKED AND UPDATED

QUERY – do we need this section? Does it need to include emerging policies?

Until DPDs in the new LDFs have been adopted, 'policies put forward to be saved' in local plans will continue to be operational. Policies in structure plans that do not repeat national or regional policies have also been 'put forward to be saved' until the new RSSs are approved.

There are many relevant policies within development plans that cover the area, but only the saved policies which specifically mention the North Pennines AONB are listed below:

Cumbria and Lake District Joint Structure Plan 2001-2016 (April 2006)

Policy R45: Renewable Energy in the Lake District National Park and AONBs

Within the Lake District National Park and AONBs, proposals for renewable energy developments, including any ancillary infrastructure or buildings will be favourably considered if:

1. their scale, form, design, materials and cumulative impacts can be satisfactorily assimilated into the landscape or built environment and would not harm the appearance of these areas, and
2. they would not impact adversely on the local community, economy, nature conservation or historical interests.

In the case of wind energy, the development of more than one turbine or of a turbine with a ground to hub height of 25 metres or more is unlikely to be acceptable.

Cumbria Minerals and Waste Local Plan (2000)

Policies in the Cumbria Minerals and Waste Local Plan saved until the Minerals and Waste Development Framework is prepared, which will replace the current Local Plan.

Policy 10

Proposals for minerals and waste development outside AONBs, the Heritage Coast and County Landscapes will be permitted provided there will not be unacceptable permanent harm to features of local landscape significance.

County Durham Minerals Local Plan

Policies in the Durham County Minerals Local Plan saved until the Minerals Core Strategy DPD is adopted .

Policy - M22 Area of Outstanding Natural Beauty

Other than as allowed for in Policy M10, mineral extraction in or adjacent to the North Pennines AONB will not be permitted except in exceptional circumstances and where one or more of the following applies:

- a) there is an overriding national need for the mineral which cannot be met from alternative sites or sources elsewhere, including suitable secondary or recycled materials, and which is sufficient to outweigh the need to conserve the character of the area;
- b) the mineral extraction is in advance of other approved development or which is on land allocated in an adopted development plan (in accordance with Policy M15);
- c) the proposal is acceptable as a borrow pit (in accordance with Policy M13);
- d) part of the site consists of derelict or contaminated land in need of treatment and the proposal provides for its comprehensive reclamation;
- e) where it leads to an overall improvement through the relinquishing or consolidation of other planning permissions (in accordance with Policy M53);
- f) it is an extension to an existing mineral working (in accordance with Policy M3).

In all cases proposals will be required to conform with other relevant policies of this Plan.

Northumberland County and National Park Joint Structure Plan (2005)

The Northumberland County Structure Plan was adopted by the County Council in May 1996. With the establishing of the National Park Authority as a planning authority in April 1997, the existing County Structure Plan became a Joint Structure Plan, and was referred to as the Northumberland County and National Park Joint Structure Plan. In 2001 the National Park Authority and Northumberland County Council agreed to carry out a review as the 'first alteration' and the changes were adopted by both authorities and became operative in February 2005. There is a consolidated written statement with accompanying key diagram with the title Northumberland County and National Park Joint Structure Plan First Alteration. This is made up of unaltered adopted policies and policies altered by or new policies added by the First Alteration. Three unaltered adopted policies from the Northumberland County and National Park Joint Structure Plan have been put forward to be saved from September 2007. All of the other policies put forward to be saved are altered or new as a result of the first alteration, and therefore will be saved from February 2008. It will be therefore necessary for the Assembly to make a separate request to the Secretary of State, to extend those structure plan policies which were adopted after the commencement of the Act.

Policy M4

Local Planning Authorities will support and encourage major development for the generation of electricity from all renewable resources, except in the National Park, Areas of Outstanding Natural Beauty, Heritage Coast, the Hadrian's Wall World Heritage site and sites of national and international importance for nature conservation. In those areas exceptional reasons must be shown to justify such development and proposals will be subject to Policy M1.

Policy T14

In the National Park and the North Pennines and Northumberland Coast Areas of Outstanding Natural Beauty, the Local Planning Authority will only permit proposals for new roads and road improvements where there is a proven need. All proposals must have full regard to the character of the designated areas and incorporate measures which minimise their impact on the environment.

Carlisle District Local Plan

Policies from the revised redeposit draft (September 2006):

Policy DP8 - Areas of Outstanding Natural Beauty

Within the North Pennines and Solway Coast Areas of Outstanding Natural Beauty, and their settings, permission will not be given for development that would harm the special characteristics and landscape quality of the areas. Development proposals must conserve or enhance the natural beauty of the areas, including scenic qualities, landform, ecology, geology, cultural interests, and the historic environment, so that these qualities can be enjoyed by present and future generations. Major development of a national scale will only be permitted in exceptional circumstances where it can be demonstrated to be in the public interest. Development required to meet local infrastructure needs which cannot be located anywhere else will be permitted provided it is sited to minimise environmental impact and meet high standards of design.

Policy EC19 - Overhead Power Lines

When considering consultations for proposals for overhead power lines the Council will wish to be satisfied that more suitable alternative sites, routes or systems are not available. Proposals for overhead power lines and high powered electrical installations should avoid the following areas:

1. the Solway Coast and North Pennines Areas of Outstanding Natural Beauty and their setting;
2. Hadrian's Wall Military Zone World Heritage Site and Buffer Zone.

The following areas should also be protected as far as reasonably practicable:

3. landscapes of county importance;
4. areas of nature conservation interest;
5. conservation areas, or in the vicinity of listed buildings or scheduled ancient monuments;
6. existing or proposed residential development;

Where there is no reasonable alternative to such developments being located within these areas careful routing, siting and design will usually be the most appropriate way to minimise their effects.

Policy LE26 Agricultural Buildings

Proposals for new farm buildings and extensions to existing agricultural buildings and other farm structures will be permitted provided that;

1. The building or structure is sited where practical to integrate with existing farm buildings and/or take advantage of the contours of the land and any existing natural screening; and
2. The scale and form of the proposed building or structure relates to the existing group of farm buildings; and
3. Within AONBs, conservation areas and Landscapes of County Importance, the design and materials used reflect the overall character of the area; and
4. The proposal would not have an unacceptable impact on any adjacent properties.

Derwentside District Local Plan (1997)

Policy in the Derwentside District Local Plan saved until the Core Strategy DPD is adopted (likely date June 2010):

Policy EN5 - Development within the North Pennines AONB

When considering proposals within the North Pennines Area of Outstanding Natural Beauty, development will only be permitted where it conserves or enhances the high landscape qualities of the area.

Eden District Local Plan (1996)

Policy - NE2 Development in the North Pennines AONB

Priority will be given to the protection and enhancement of the special character of the North Pennines AONB. Within the North Pennines AONB development proposals will only be permitted on sites within or immediately adjacent and well related to settlements. Major development outside established settlements will only

be permitted if an exceptional case can be made and all reasonable alternative locations have been explored and shown to be unacceptable. All development within the North Pennines AONB must, through appropriate siting, design, materials and landscaping measures, minimise environmental impacts and contribute to the preservation or enhancement of the distinctive character of the landscape and of the area.

Wear Valley District Local Plan (1997)

Policy ENV2

Priority will be given to the protection and enhancement of the landscape qualities of the North Pennines Area of Outstanding Natural Beauty as identified on the Proposals Map, when considering proposals for development. Development which adversely affects the special scenic quality and the nature conservation interest of the AONB will not be permitted.

Policy H28

Planning permission will be granted for permanent, temporary or transit accommodation for gypsies and travellers provided that:

- i) the site would have convenient access to schools, medical facilities, public transport routes and other local services;
- ii) access and parking arrangements are in accordance with Further Plan Guidance Notes 1 and 2;
- iii) the scale of the development would not affect the amenity or living conditions of local residents;
- iv) the site can be assimilated into the landscape and would not intrude into open countryside, and have no adverse impact on areas of nature conservation, archaeological and/or historic interest or on any existing agricultural activity in the vicinity. Sites will not normally be allowed in the North Pennines Area of Outstanding Natural Beauty or the Area of Landscape Value;
- v) the site is planned comprehensively to include external and internal plot separating landscaping, hardstanding for caravans, and car/lorry parking, work areas and play areas; and

vi) the site conforms to Policy GD1.

Policy MW4

Proposals for the development of wind turbines will be allowed on land identified on the Proposals Map, provided that they fulfil the following criteria:

i) they do not adversely affect the amenity, health and safety of neighbouring properties

and residents by reason of noise, vibration, visual dominance, shadow flicker or reflected light; and

ii) no electromagnetic interference is likely to be caused to existing transmitting or receiving systems and that measures will be taken to remedy or mitigate any such interference.

Proposals for the erection of wind turbines which adversely affect the scenic quality of the AONB will not be permitted.

Sites with planning permission for turbines or operational turbines will be safeguarded from development which would prejudice the generation of electricity.

Policy TM1

The Council will give encouragement to schemes which provide tourism facilities in the District provided they:

i) are of a scale and intensity compatible with their surrounds; and

ii) can be absorbed into the landscape by taking advantage of existing tree cover and/or the topography of the site and surroundings; and

iii) do not conflict with other proposals contained in the local plan, particularly those

which seek to safeguard the landscape, agricultural land and nature conservation interests; and

iv) can be accessed safely, adequate parking facilities are provided, and do not

create

unacceptable levels of traffic which exceed the capacity of the local road network; and

v) the scale of the development does not affect the amenities of local residents adversely; and

vi) fulfil the General Development Criteria, Policy GD1 and they do not conflict with Policies ENV1,2,3 and 4.

Policy TM2

Tourism development proposals within the AONB will be allowed only if they fulfil the following criteria:

i) do not detract from the landscape quality and built environment of the AONB and are in keeping with the upland rural character of the area;

ii) proposals which generate large volumes of traffic which exceeds the capacity of the local road network will be resisted;

iii) due to the tranquil nature of the AONB, developments will be limited to those that allow the quiet enjoyment of the countryside; and

iv) the development should fulfil the criteria identified in Policy TM1 and does not conflict with Policy ENV2.

Policy TM7

The development of new sites in the countryside for camping and touring caravans will be permitted provided they fulfil the criteria identified in Policy TM1. Proposals within the AONB will be required to fulfil Policy TM2.

The development of new sites for chalets may be allowed in disused quarries or other locations well-screened all year round, provided the proposal fulfils Policies TM1 and TM2 and would not have an adverse impact on nature conservation.

New sites for static caravans and caravan storage will not be allowed west of the A68.

Elsewhere in the District, proposals will be required to fulfil the criteria identified in Policy TM1.

Policy BE21

Proposals for farm diversification will be permitted provided they fulfil the following criteria. The proposal should:

- i) remain ancillary to the main agricultural function;
- ii) utilise, where possible, existing farm buildings. Where new buildings are required they should be in keeping with the traditional form and character of the farm group and be well related to existing buildings; and
- iii) satisfy the General Development criteria, Policy GD1.

Within the AONB farm diversification proposals will only be permitted if they do not conflict with the character of the countryside.

Teesdale District Local Plan

POLICY ENV2

Within and adjacent to the North Pennines area of outstanding natural beauty, as indicated on the proposals map, development will only be permitted where it protects the landscape quality and natural beauty of the designated area. Large scale development will not be permitted within the AONB unless demonstrated to be in the public interest, having regard to environmental and landscape impact, need for the development in terms of national considerations and the impact on the local economy and the cost of and scope for meeting the need in some other way. Such development proposals should accord with policy GD1.

Appendix 3 Supplementary Planning Documents

The list below details Supplementary Planning Documents (SPD) that are adopted, under preparation, or proposed by local planning authorities in the AONB area. Those that are dated are adopted at the time of this publication. Those without dates are proposed. For up-to-date information check the relevant local authority website. **UPDATE and CHECK**

Cumbria County Council

Cumbria Landscape Character SPD **Cumbria Wind Energy SPD**

Durham County Council

Sustainable Design SPD

Carlisle City Council

It is proposed to update these existing SPG (currently saved and linked to saved policies) as SPD: Trees on Development Sites (currently under review), Countryside Design (to be programmed), Cumbria Design Guide (currently under review), Designing out Crime in Residential Areas (currently under review), NP AONB Agricultural Buildings Design Guide (currently under review), NP AONB Design, Maintenance and Adaptation of Rural Buildings (currently under review).

Eden District Council

Shop front and Advertisement Design SPD (2006), An Accessible and Inclusive Environment SPD (2007)

Appendix 4 Listed Buildings and Conservation Areas

Listed Buildings

Listed Buildings are buildings recommended by English Heritage for inclusion on statutory lists of buildings 'of special architectural or historic interest' compiled by the Secretary of State for Culture, Media and Sport.

Buildings can be listed because of age, rarity, architectural merit, and method of construction. Occasionally English Heritage selects a building because the building has played a part in the life of a famous person, or as the scene for an important event. An interesting group of buildings - such as a model village or a square - may also be listed.

The older a building is, the more likely it is to be listed. All buildings built before 1700 which survive in anything like their original condition are listed, as are most built between 1700 and 1840. After that date, the criteria become tighter with time, so that post-1945 buildings have to be exceptionally important to be listed.

Listed buildings vary considerably and not all are habitable. The category also includes a wide range of monuments and other structures from milestones to lamp posts.

The buildings are graded to show their relative architectural or historic interest:

- Grade I buildings are of exceptional interest
- Grade II* are particularly important buildings of more than special interest
- Grade II are of special interest, warranting every effort to preserve them

Grade I and II* buildings may be eligible for English Heritage grants for urgent major repairs.

The demolition of a listed building or any alterations affecting its character requires a listed building consent application to be submitted to the Local Planning Authority (LPA). Listed building consent is required for many works that do not require planning permission. If the works do require planning permission listed building consent is still required. Repairs on a 'like for like' basis do not normally require consent.

In considering whether to grant consent for development which affects a listed building or its setting, the local authority will have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Works carried out without consent can result in prosecution.

To find out whether a building is listed you should contact your LPA. For more information on listed buildings generally visit the English Heritage website at www.english-heritage.org.uk

Conservation Areas

Local authorities have the power to designate as Conservation Areas any area of 'special architectural or historic interest' whose character or appearance is worth protecting or enhancing. This is judged against local and regional criteria, rather than national importance as is the case with listing. Many of the historic towns and villages of the AONB are designated in whole or in part as Conservation Areas.

In a Conservation Area permission from the local LPA is required before undertaking some works that would not normally require permission elsewhere. As a general guide, the following works require permission: you are advised to contact your LPA for specific guidance relating to your proposals.

- Works to extend buildings, clad external walls, alter a roof, insert dormer windows or put up satellite dishes
- The demolition of almost any building
- Work to trees including felling, topping and lopping
- The display of advertisements which may have a significant visual impact

In some conservation areas, there are further limits as to the type of development that can be carried out without the need to apply for permission. In these areas, Article 4 Directions apply. This means extra provisions are in place to protect special features such as windows and doors. If your property is in a conservation area you should contact the LPA to find out if it is affected by an Article 4 Direction.

Grants for carrying out improvements in conservation areas are available through a number of schemes run in association with English Heritage. These usually focus on

specific towns and villages and run for a fixed period. Contact the LPA for more information.

Appendix 5 Tree and Hedgerow Protection

Tree Preservation Orders

In order to protect individual trees or groups of trees that are of value to the community, the local planning authority (LPA) may create a Tree Preservation Order (TPO).

A TPO makes it a criminal offence to fell, lop, top, uproot or otherwise wilfully damage a protected tree without the permission of the LPA. There is a fine of up to £20,000 per tree if convicted in a Magistrates Court. For other offences there is a fine of up to £2500. If convicted, a replacement tree will also normally need to be planted on or near the place where the tree was destroyed. You are advised when considering carrying out work on any trees to check with the Council as to whether the trees are protected.

If a tree is protected by a TPO, consent will normally be required for pruning or felling. An application must be made by completing the standard application form, stating the reasons for the application and giving details of the proposed work. Supporting technical information may also be required if the reason for the application relates to the condition of the tree - for example due to the presence of pests, diseases, fungi or structural defects affecting the safety of the tree. Written evidence from an appropriate arboricultural professional may be required in support of the application.

If the reason for the application relates to suspected structural damage caused by the tree, a report from a structural engineer/surveyor together with technical advice should normally be submitted in support of the application.

Trees in Conservation Areas

Trees in Conservation areas are also protected by planning legislation. You will need to notify the LPA in writing six weeks in advance of any works if you wish to fell or prune any tree in a Conservation Area. This gives the Council an opportunity to consider protecting the tree by imposing a Tree Preservation Order.

Trees covered by planning conditions

Trees on Development Sites may be protected by a planning condition that is usually in force both during the construction phase and afterwards. The planning condition may bind future occupiers not to remove or damage trees and give the local authority the power to enforce replanting should any loss or damage occur.

Felling licences

The felling of over a certain volume of timber requires a Felling Licence which can be obtained from the Forestry Commission.

Hedgerows

Under the Hedgerow Regulations 1997, it is against the law to remove most countryside hedgerows without the permission of the LPA. These Regulations do not apply to garden hedges. To get permission to remove a countryside hedgerow, you must write to your LPA.

The way in which the Regulations apply to individual hedges can be quite complex. It is therefore advisable to speak to your LPA before you formally seek permission to remove a hedge. On receipt of a notice to remove a hedge the local authority will assess it against criteria set out in the Regulations to discover whether it qualifies as an 'important' hedge. To qualify as 'important', the hedgerow must be at least 30 years old and at least 20m long (although shorter hedges can be included if linked to other hedgerows) and meet at least one of eight criteria relating to the hedgerow's archaeological, historical, wildlife or landscape value.

If the authority decides to prohibit the removal of an 'important' hedgerow, it must let you know within 6 weeks. If you remove a hedgerow without permission, irrespective of whether it would be considered to be an important hedge, you may face an unlimited fine. You may also have to replace the hedgerow. More detailed guidance can be found in [The Hedgerows Regulations 1997: a Guide to the Law and Good Practice](#) and [Hedgerow Regulations - Your Questions Answered](#) available from DEFRA.

Appendix 6 BAP Priority Habitats and Species

Priority Habitats in the North Pennines

Ancient semi natural woodland	Blanket Bog and Upland wet Heath
Other Broadleaved Woodland	Calaminarian Grassland
Native Hedgerows	Species-rich upland acid grassland
Parkland	Upland calcareous grassland
Scrub	Upland Dry Heath
Veteran trees	Upland hay Meadows
Wet Woodland	Upland Scree & Rock Habitats
Wood Pasture	Early succesional Brownfield land
Exposed Riverine Sediments	Road verges of conservation importance
Ponds	Waxcap grasslands
Rivers & Streams	

BAP Priority Species in the North Pennines

Badger	Curlew
Bats	Hen harrier
Brown Hare	House Sparrow
Hedgehog	Lapwing
Otter	Linnet
Red Squirrel	Merlin
Water Vole	Nightjar
Barn owl	Redshank
Black Grouse	Reed Bunting

Ring Ouzel	Dark green fritillary
Skylark	Dingy Skipper
Snipe	Glow Worm
Song thrush	Grayling
Spotted Fly-catcher	Green Hairstreak
Starling	Northern Dart (moth)
Tree Sparrow	Round-mouthed Whorl Snail -vertigo genesii
Adder	White-clawed Crayfish
Common Lizard	Juniper
Slow Worm	Ladies Mantles
Eel	Pale Bristle Moss
Salmon	Yellow Marsh Saxifrage
Trout	

* Note: terminology for habitats may vary between local BAPs

Appendix 7 Invasive species

Invasive species are non-native species which can pose a threat to our native species and habitats because of their competitive nature. Most of these were introduced into the wild from gardens and horticultural collections.

It is illegal to plant or cause to grow in the wild species which are listed under Schedule 9 of the Wildlife and Countryside Act 1981. The species currently causing most concern amongst conservation organisations include.

- Spanish Bluebell (*Hyacinthoides hispanica*)
- Parrot's feather (*Myriophyllum aquaticum*)
- New Zealand Pigmyweed (*Crassula helmsii*)
- Himalayan (Indian) Balsam (*Impatiens glandulifera*)
- Floating Pennywort (*Hydrocotyle ranunculoides*)
- *Cotoneaster* spp.
- *Rhododendron ponticum*
- Japanese Knotweed (*Fallopia japonica*)
- Giant Hogweed (*Heracleum mantegazzianum*)

More information on can be found on the [Natural England](#) and [Environment Agency](#) websites. The charity [Plantlife](#) campaigns on this issue and has useful guidance on its website: www.plantlife.org