REPORT TO EXECUTIVE

PORTFOLIO AREA: ECONOMIC DEVELOPMENT

Date of Meeting: 22nd Nov 2010

Public

Key Decision: Yes **Recorded in Forward Plan: Yes**

Outside Policy Framework

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

Report of: **Assistant Director Economic Development**

Report reference: **ED. 35/10**

Summary:

This report sets out the results of a public consultation exercise on the above two SPDs, and how the SPDs have been amended to reflect the comments received. The SPDs will form part of the Council's Local Development Framework. They express in detail the provisions of Policy DP9 of the Local Plan and how it is to be implemented in practice. Policy DP9 makes provision for development in the AONB subject to the special characteristics and landscape quality of the area being conserved or enhanced.

Recommendations:

That Executive considers the changes to the SPDs 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, they be referred back to Executive to consider referral to Council for adoption.

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: North Pennines AONB Management Plan 2009-2014. Carlisle District Local Plan 2001-2016

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1. BACKGROUND INFORMATION AND OPTIONS

1.1 These documents have been prepared by the North Pennines AONB Partnership with significant input from a City Council officer 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.

1.4 Executive Report DS.07/10 sets out the draft Supplementary Planning Documents for the North Pennines Area of Outstanding Natural Beauty which have been developed through the North Pennines AONB Partnership.

2. CONSULTATION

2.1 Consultation to date in the drafting of the document has taken place through a working group made up of the five local authorities within the AONB boundary.

2.2 This was followed by advertisement in the local press throughout the area of the AONB, and on all local authority and AONB Partnership websites. Statutory consultees were written to, as were Parish Councils, community groups, AAPs / LSPs etc within the AONB boundary; individual comments were logged and responded to as set out in the following table. Each respondent was then contacted 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 there is precedent for this approach.

2.3 The table at Appendix 1and Appendix 2 sets out the responses received to each SPD, and the changes made as a result.

3. RECOMMENDATIONS

3.1 That Executive considers the changes to the SPDs 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, they be referred back to Executive to consider referral to Council for adoption.

4. REASONS FOR RECOMMENDATIONS

4.4 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 address both corporate issues in that improving the AONB enhances the economic viability of the area, and the SPDs form part of the LDF which contributes towards the Council's Economic priority.

- 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.

Impact assessments

Does the change have an impact on the following?

Equality Impact Screening	Impact Yes/No?	Is the impact positive or negative?
Does the policy/service impact on the following?		
Age	No	
Disability	No	
Race	No	
Gender/ Transgender	No	
Sexual Orientation	No	
Religion or belief	No	
Human Rights	No	
Social exclusion	No	
Health inequalities	No	
Rurality	Yes	Positive

If you consider there is either no impact or no negative impact, please give reasons:

.....
.....
.....

If an equality Impact is necessary, please contact the P&P team.

Appendix 1: Planning Guidelines

No	Res	Page	Edit
1	NCC	0	Has been picked up throughout document
-	-	6	Para 2. Replace ……as these are subject to policies in Planning Policy Statements and Regional Spatial Strategies and their successors, but should… with ……as these are subject to policies in Planning Policy Statements, but should…
2	NCC	8	Not an appropriate part of document to flag up archaeology pre-apps – dealt with on page 26 (see comment 5 below)
3	NCC	11/12	P 11, Para 3. Replace … subsequently incorporated in PPS7, was… with ….subsequently incorporated in PPS7 (which replaced PPG7), was… P12, Para 2. Replace ….the most relevant to development in the North Pennines AONB are… with ….the most relevant to development in the North Pennines AONB at the time of publication are… Replace Draft PPS1(supplement):Planning and Climate Change (2007) with Planning Policy Statement: Planning and Climate Change – Supplement to PPS1 Replace PPS15 Planning and the Historic Environment (1994) with PPS5: Planning for the Historic Environment Add to list (in the relevant numerical order) PPS4: Planning for sustainable economic growth

			PPS10: Planning for Sustainable Waste Management Para 3. Replace At the time of publication of this consultation draft the Government are consulting on two new PPs: with New PPS are published from time to time which may replace existing PPG and PPS in whole or in part. Up to date information is available from the Government website or from local authority planning services. At the time of publication the Government were consulting on two new PPs:
-	-	**13**	Delete paragraphs 1 and 2 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. Para 3. Replace 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). with The Planning and Compulsory Purchase Act 2004 introduced a new system of development plans that abolished Structure Plans and replaced District Local Plans with Local Development Frameworks (LDF). Local planning authorities are currently engaged in the process of replacing their local plans with LDFs. Para 5. Delete sentence 2 (see also CCC comment 97) 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.
4	**NCC**	**19**	Para 5. Add to list of local authority LCAs.. • The Northumberland Landscape Character Assessment (which will

			supersede the Tynedale District LCA)
-	-	**23**	Line 2. Line 2 – after *emerging local development frameworks* insert sentence: The North Pennines Geodiversity Action Plan (see below) identifies a number of North Pennines Geodiversity Sites. These include sites identified by local authorities as Local Sites and additional candidate Local Sites.
5	**NCC**	**26**	Add new final paragraph Early pre-application discussions with the County Archaeologist are essential, as where assessment and evaluation work is required this will need to be completed at a pre-application stage, in line with the provisions made in policies HE6 and HE8 of PPS 5. Planning applications will be assessed in terms of both their direct (physical) and indirect (visual) impacts on standing and below-ground archaeological remains. Planning conditions may be used to ensure that mitigation works such as excavation, watching briefs or building recording are carried out as necessary. Replace bullet point 1 with • 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) at an early stage to find out what assessment and evaluation work is required.
6	**NCC**	**31**	Para 4 sentence 1 add … sets out the Government's approach to conserving soils in England, and Defra's *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites* (Defra 2009) gives further guidance.
7	**NCC**	**38**	No action required
8	**NCC**	**39**	Page 40. Insert new bullet point between points 2 and 3 • Restore the site progressively and look for opportunities to improve biodiversity, geodiversity and landscape throughout its working life.
9	**NCC**	**39**	As qualifications about pre-apps have been added above (comment 5, p26 above) it is unnecessary to repeat it here. It is accepted that it will need to be determined for each site whether preservation in situ or by record is appropriate – but preservation in situ is still the preferred option. Add new bullet point after bullet point 5: • Where preservation of archaeological features by record rather than in situ has been agreed, ensure that recording is carried out to a high standard and that results are published.
-	-	**44**	Delete paragraphs 5 and 6 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".* Page 45, paragraph 3, after *Smaller scale developments will be supported provided that their impacts on the special qualities of the AONB are not significant.* Add In relation to wind energy small scale in this context means development consisting of a single turbine with a ground to hub height of 25 metres or less. This criterion is based on 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".*
10	**NCC**	**45**	Typo para 2. AAONB's should read NAAONB's
-	**-**	**46**	Bullet point 1 shouldn't be a bullet point – it is an introductory sentence – remove bullet from bullet point 1
11	**NCC**	**46**	Page 46. Amend bullet point 5 to read: • sensitive habitats or archaeology can be physically damaged by the development, or by construction works or associated infrastructure, as can protected species. …..and amending bullet point 9 to read • development can detract visually from the character or setting of listed buildings, conservation areas, scheduled monuments and archaeological features It wouldn't be appropriate to make reference here to the need for pre-application discussions. This is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here.
12	**NCC**	**48**	Bullet 3- Small scale hydroelectric development – should be a sub-header and not a bullet. Remove bullet and **format in bold as a sub-header**

13	**NCC**	**48**	This is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here. Add to existing bullet point 4: • Consult the Environment Agency, Natural England and the County Archaeologist at a very early stage in the process. and bullet point 13: • Bury pipelines taking care to avoid damage to important vegetation and archaeological features.... Page P46 – amend bullet point 10 to read: • The infrastructure required for energy projects – substations, overhead cables and service poles can add visual clutter to the landscape, or affect sensitive habitats or archaeological features.
14	**NCC**	**49**	Bullet 1- Small-medium scale biomass development – should be a **sub-header** and not a bullet. Remove bullet and **format in bold as a sub-header**
15	**NCC**	**54**	The issue of physical and visual impacts is covered in bullet point 8. The need for pre-apps is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here.
16	**NCC**	**57**	Suggest adding to bullet point 2 on Page 56 • Insensitive conversions of existing buildings can damage their architectural character and historic significance. Historic building assessment and historic building assessments are better dealt with in the BDG. This section signposts the BDG for dealing in more detail with impacts on buildings - final paragraph, page 56 – so it is proposed to make no change. The need for pre-apps is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here.
17	**NCC**	**59**	As above. The need for pre-apps is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here.
18	**NCC**	**60**	The need for pre-apps is now covered in the revised p 26 and wouldn't be consistent with the document format to mention it here.
19	**NCC**	**64**	No action required
20	**NCC**	**79**	Para 3. Replace sentence 1 *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.* with Spatial planning documents which form the development plan for a local

			authority area and are subject to independent examination. Para 8. Delete phrase ..and review the LDS on an annual basis. Para 10 (PPG) replace Government statements of national planning policy (being superseded by PPSs). with Government guidance on national planning policy (being superseded by National Policy Statements and PPSs)
21	**NCC**	**82**	P82 Northumberland County Council – change email address to conservation@northumberland.gov.uk
22	**CPRE**	**0**	No action required
23	**CPRE**	**60**	Amend bullet point 7 to read: • Avoid excessive lighting. Where lighting is required for evening activities design and manage it carefully (see Tranquillity: Light).
24	**EDC**	**5**	Page 5. Replace sentence 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. with The five planning authorities within the north Pennines (Cumbria County Council, Durham County Council, Northumberland County Council, Eden District 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.
25	**EDC**	**13**	Para 5 Supplementary Planning Documents. Delete reference to sustainability appraisal in first sentence 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. And amend to read: 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 including community involvement.
26	**EDC**	**26**	Replace final bullet point • Where possible sympathetically re-use or adapt redundant historic structures to give them a use that will sustain their management in the future. with • Look for opportunities to sympathetically re-use or adapt redundant historic structures to give them a use that will sustain their management in the future. Discuss your ideas early with the local authority.
27	**EDC**	**45**	As comment 10 - Typo para 2. AAONB's should read NAAONB's
28	**EDC**	**49**	Typo – further information para 2. AAONBs should read NAAONB's
29	**EDC**	**60**	Replace bullet point 1 • re-use existing buildings where possible and convert them sensitively to their new use. with • Consider re-using existing buildings where this is appropriate and can be done sensitively.
30	**EDC**	**0**	General action taken
31	**EDC**	**0**	Replace bullets with numbers (guidelines only) prefixed with the capital letters of the topic TR1, TR2, TR3 etc for Tourism and Recreation for example.
32	**EDC**	**0**	Reference to PPG15 will be replaced by PPS5 in response to comment 3
33	**EDC**	**0**	Page 8. Para 1 sentence 1 - Delete ...and the timetable for its preparation and adoption.
34	**RSPB**	**18**	No action proposed.
35	**RSPB**	**22**	No action required.
36	**RSPB**	**24**	Bullet point 11 (look for opportunities to create...) Add sentence. Incorporate these into the submitted proposals.
37	**RSPB**	**36**	No action required
38	**RSPB**	**39**	Add bullet point after existing BP2 on page 39 • Avoid secondary or indirect impacts on species and habitats of nature

			conservation value in neighbouring areas.
39	**RSPB**	**40**	Replace existing BP4 on page 40 • Restore the site in a manner which maximizes its biodiversity. Create new BAP priority habitats and cater for BAP priority species. With • Restore the site in a manner which maximizes its biodiversity. Ensure that habitat creation proposals are deliverable and based on sound techniques. • Create new BAP priority habitats and cater for BAP priority species. Focus on those most relevant to the area.
40	**RSPB**	**47**	No action required
41	**RSPB**	**49**	Add bullet point on p49 • Ensure that feedstocks are from sustainable sources. Look for opportunities to use or develop local wood fuel sources which also deliver biodiversity benefits.
42	**RSPB**	**50**	No action required
43	**RSPB**	**56**	Add bullet points to Impacts on P 56 • The management of associated farmland may change to more intensive uses (pony paddocks) or extensive uses (ranching) leading to impacts on character and biodiversity. • Farmland may pass into the control of new owners/managers who lack the knowledge and expertise of farmers. Add bullet point to guidelines on P 57 • Consider how changes in land management may affect character or biodiversity and mitigate potential impacts where possible.
44	**RSPB**	**57**	Add bullet point to guidelines on P 57 • Identify opportunities to provide alternative nesting sites for birds that may be affected by renovations or demolitions and include them within submitted proposals.
45	**RSPB**	**60**	Add to bullet point 6 on page 59 • Pressures of visitor numbers can lead to damage to footpaths and fragile habitats, or disturbance to sensitive species. Add bullet point to guidelines on P 60 • Assess the potential impacts of increased recreational activity on fragile habitats and sensitive species. Identify appropriate visitor management measures to minimise impacts.
46	**RSPB**	**70**	Page 70 paragraph 2 change final sentence to read: Always take advice on the existing biodiversity or archaeological value of potential planting sites, including the potential to cause adverse effects on adjacent land, and avoid planting in sensitive locations.
47	**RSPB**	**71**	Add to the end of existing para 3 (*...value of their flowers and berries.*):

			Consideration should be given to biodiversity priorities in the area: for example planting berry-bearing species as a seasonal food source for Black Grouse.
48	**RSPB**	**77**	Paragraph 1 (Fences gates and barriers) add sentence at end of paragraph. In some sensitive locations wire fences may need to be marked to reduce the incidence of bird strike, particularly for black grouse and waders. The least visually intrusive method is to use reflective metal plates between the top wires, one between each post. Page 78 add sentence to bottom of Further Information Guidance on marking fences to avoid bird strike can be found on the Black Grouse Recovery Project website: www.blackgrouse.info.
49	**CCC**		Accept need for further guidance on Access. New Access section proposed Page 7: Add to the end of paragraph 2 Works affecting public rights of way or public highways may require consents from the highway authority which are separate from the planning system.
50	**CCC**		Page 78. Add sentence to main body text (before Further Information). Where new fences or gates would affect a public highway or public right of way you should contact your Highway Authority (your County Council or unitary authority) for advice. Public highways and rights of way are subject to regulatory systems that are independent of the planning system. New Access section proposed.
51	**CCC**		Accept. New access section proposed. Add to **Appendix 1: Contacts** **Access** **Cumbria County Council:** Rights of Way, Cumbria County Council, The Courts, Carlisle, Cumbria, CA3 8NA. email: david.gibson@cumbriacc.gov.uk. Tel 01288 226558 **Durham County Council:** Access and Rights of Way, Regeneration and Economic Development, Durham County Council, County Hall, Durham, DH1 5UQ. Email prow@durham.gov.uk Tel 0191 383 3239 **Northumberland County Council:** County Hall, Morpeth, Northumberland. NE61 2EF email: DBrooks@northumberland.gov.uk tel:0845 600 6400
52	**NE**	**2**	No action required
53	**NE**	**7**	Page 7 paragraph 2 insert sentence after sentence 2 (ending 1990 etc.)

			and before sentence 3 (starting Before considering) In all development there will be a need to consider protected species legislation and requirements.
54	**NE**	**8**	No action required
55	**NE**	**9**	Page 9 paragraph 2 sentence 1 amend figures to read: There are **38** AONBs covering **16%** of England and Wales (**33** wholly in England, 4 wholly in Wales and 1 which straddles the border).
56	**NE**	**9**	Page 9 paragraph 2 replace sentence The purposes of designation were restated by the then Countryside Agency in 20011 as follows: with The purposes of AONB designation were reaffirmed by the Countryside and Rights of Way Act 2000 and are as follows. Delete the sentence These purposes have since been endorsed by natural England.
56 (2)	**NE**	**16**	No action required
57	**NE**	**17**	Pressures Paragraph 1. Add sentence to end of para. Climate change is likely to bring many new pressures to bear on the landscape, some of which are difficult to quantify at this stage.
58	**NE**	**19**	Add to sentence 1 on page 20: ...those parts of the landscape lying in Northumberland. The AONB Partnership is currently working on an integrated landscape character assessment and landscape guidelines for the North Pennines.
59	**NE**	**20**	To **Further Information** Add at line 1 Countryside Character: Volume 1: North East. www.naturalengland.org.uk replace: Landscape Character Assessment of Tynedale District and Northumberland National Park. www.northumberland.gov.uk with Northumberland Landscape Character Assessment. www.northumberland.gov.uk Add to bottom of list Guidelines for Landscape and Visual Impact Assessment (2nd Edition 2002): Landscape Institute and Institute of Environmental Management and

			Assessment. ISBN 0 419 20380 X
60	**NE**	**22**	No action required
61	**NE**	**23**	Typo on para 1 page 23 Natural England Website is naturalengland.org.uk Para 2 sentence 1: amend to read: Information on species protection and survey and licence requirement for protected species can be found on...
62	**NE**	**24**	Page 24 bullet 3: Add sentence to end ...for advice (see Appendix 1). Avoid adverse effects (direct or indirect) on protected species. Amend Bullet 17 (Develop a code of conduct....) to read: Adopt careful working practices detailed in a method statement, including a code of conduct for your workforce and subcontractors, to ensure that they don't inadvertently damage habitats or disturb important species. Opportunities to enhance biodiversity through design are covered by Bullet Point 13.
63	NE	25	Green Infrastructure as a concept has more usefulness in urban and urban fringe landscapes. In the AONB 99% of the landscape is effectively GI which then becomes simply another term for 'the environment'. To introduce it as an environmental resource alongside landscape biodiversity etc would be confusing. If we take it in its narrow sense to mean only 'multi-functional green-space' we are not convinced that is a particular relevant concept for the AONB. The whole of the AONB environment is multi-functional in varying degrees. We are not anticipating any large developments in the AONB where the provision of multi-functional green space would be a requirement. The multi-functionality of green space is only an important issue if you don't have much of it – if your landscape is comprised entirely of it, separating out functions can be as sensible.
64	**NE**	**28**	Page 28 At the start of para2 (before These impacts can often be avoided etc...) insert: Introducing lighting into unlit areas can be detrimental to nocturnal species like bats, and disturbance-sensitive species like otters. Page 29 Add final bullet point • Avoid introducing external lighting into important foraging areas for

			bats. Avoid wildlife corridors and particularly watercourses.
65	**NE**	**39**	Page 39. Add bullet point after bp2: • Avoid adverse impacts (direct or indirect) on protected species.
66	**NE**	**42**	Page 42 Change Bullet Point 5 (Construction can impact upon…) to • Construction works can have adverse impacts on sensitive habitats, species or archaeology Typo – Final bullet point should not be a bullet point and should be reformatted as standard text
67	**NE**	**43**	To page 42 add final bullet point under **Impacts** • Guyed structures can cause collision fatalities in some bird species and particularly if poorly designed or located. Page 43 Change bullet point 6 (Locating masts within etc) to read: • 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 and avoid sites where sensitive bird species are present. Add bullet point after 'Use monopoles….' bp and before 'Use non reflective surface treatments…' bp • Use reflectors on support wires to reduce bird strike where a specific risk has been identified.
68	**NE**	**46**	Typo – bullet point 1 is not a bullet point and should be reformatted to normal text Change bullet point 5 to read: • Sensitive habitats or archaeology can be damaged by the development, or by construction works or associated infrastructure, as can protected species such as wading birds. Change bullet point 6 to read: • The natural quality, and biodiversity, of watercourses can be eroded by the development of artificial river engineering, generating plant or associated infrastructure. Change bullet point 10 to read: • The infrastructure required for energy projects – tracks, service areas, substations, fences, overhead cables and service poles can add visual clutter to the landscape and detract from its rural character. Change bullet point 11 to read: • Increased traffic associated with biomass may affect the character, condition or recreational value of rural roads and affect air quality. Add new bullet around 6/7 • Turbine and track construction can damage peatland, releasing carbon and impairing future carbon storage. Typo – final bullet point is not a bullet point and should be reformatted to

			normal text and changed to Some of the adverse impacts can be avoided or reduced by sensitive siting and design.
69	**NE**	**47**	NE guidance in TIN051 and TIN059 does not rule out development within 50m of buildings (particularly those that have little potential for bats in very open landscapes) etc but does recommend a general buffer of min 50m to turbine tip from hedges and trees for commercial turbines. The guidelines specifically do not cover micro wind (which is what this guidance covers) although we might expect similar principles to apply. Page 47. Change bullet point 4 to read as follows: • Avoid open locations for wind turbines. In open landscapes associate them visually with existing features - farm buildings or tree groups – while maintaining adequate stand-off distances for bats where necessary. Page 49 add to Further Information Further information on wind turbines and bats can be found in Natural England Technical Information Notes TIN051 and TIN059, both available from the Natural England website: www.naturalengland.org.uk
70	**NE**	**48**	This is a list of potential impacts of small hydro rather than suggestions of what the guidelines should say. The impacts they detail are covered by the amended impacts bullet point: • The natural quality and biodiversity of watercourses can be eroded by the development of artificial river engineering, generating plant or associated infrastructure. Some of these issues are effectively covered by individual bullet points. Change as follows: Page 48 add new bullet point after 'Avoid sites that would entail damage to….' And before 'Keep the footprint of….' • Avoid sites or designs that would entail significant alterations to in-stream flow regimes, or reduce biological connectivity and particularly the passage of fish and invertebrates. Change bullet point 13 to read as follows: • Bury pipelines taking care to avoid damage to important vegetation, protected species and archaeological features. Restore the route as quickly as possible using existing soil resources.
71	**NE**	**49**	No action required
72	**NE**	**51**	Change Paragraph 4, sentence 2 (Natura 2000 sites…) to read as follows Natura 2000 sites (special Protection Areas and special Areas of Conservation) are subject to protection under the Conservation of Habitats and Species Regulations 2010 to ensure compliance with the requirements of the Habitats Directive.

73	**NE**	**52**	Page 52 paragraph2 sentence 2 change to read If a land manager wishes to carry out any of the listed operations they must obtain consent from Natural England Paragraph 2 sentence 3 change to read If a public body proposes to carry out an operation likely to damage the protected natural features of an SSSI they must consult Natural England, whether or not the operation is listed as an operation requiring assent.
74	**NE**	**57**	Page 57. Add bullet point • Be aware of the potential presence of protected species such as barn owls and bats, and understand the procedures required.
75	**NE**	**59**	Page 59. Add bullet point • The conversion of buildings can lead to disturbance of protected species such as barn owls and bats.
76	**NE**	**61**	This section deals with impacts on the AONB from a range of development – not just EIA development where LVIA would always be required and the LVIA guidelines routinely applied. Page 64 Add to end of main body text. For development requiring an EIA outside of the AONB a Landscape and Visual Impact Assessment would be carried out in accordance with Guidelines for Landscape and Visual Impact Assessment produced by the Landscape Institute and the Institute of Environmental Management and Assessment. It would be normally expected that in assigning sensitivity values to the landscape as part of that process that all of the landscapes of the AONB would all be treated as being of the highest level of sensitivity. There are circumstances where proximity to the AONB may trigger the need for an EIA for development which in another location might not require one. A key consideration will be whether the development could give rise to significant impacts on the AONB. This is something that needs to be assessed on a case-by-case basis.
77	NE	65	Page 66 Paragraph 4. After '*It is essential therefore for all developers to not only mitigate adverse impacts, but to look for opportunities to enhance the environment wherever they can.' Add* It is also a requirement of the NERC ACT and PPS9 that local authorities seek opportunities to improve and enhance biodiversity.
78	**NE**	**67**	Page 67 bullet point 2 amend to read: • Take ownership of your impacts. Ensure you have 'no net harm' on the environment and aspire to enhance it.
79	**NE**	**69**	No action required

80	**NE**	**79**	No action required
81	**NE**	**82**	Page 83 Under **Landscape** contacts add **Natural England North East**, the Quadrant, Newburn riverside, Newcastle upon Tyne, NE15 8NZ. Tel: 0300 060 2219 email: northeast@naturalengland.org.uk **Natural England North West**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL. Tel: 0300 060 2122 email: northwest@naturalengland.org.uk
82	**EA**	**49**	Page 48. Add as a second bullet point after the 'Consult the Environment Agency..." bullet point: • Follow the Environment Agency Good Practice Guidelines Page 49. To further information add: Further advice on hydro power schemes can be found on the Environment Agency website – www.environmentagency.gov.uk - including Good Practice Guidelines on assessing environmental impacts.

83	**DCC**	**-**	Comprehensive and coherent document. Response: noted	
84	**DCC**	**51**	Opportunity to re-inforce issues regarding rights of way and development. Mention need to consult ROW officers at an early stage on both PROW and routes with long-standing public use. Important to stress PROW separate legal process. Existing patterns of paths can conflict with privacy ideals – early consultation with PROW officers. Mention mitigation – diversion to suitable alternative routes, enhancement of network, PROW as asset to development, need for equestrian development to gave regard to bridleways, capacity of network etc. Mention PROW features as historical assets & need to consult PROW officers. Roads and tracks mention need to consult PROW officer on changes to surface. **Response:** accept all. New Chapter on Access proposed. Page 51 paragraph 2. After 'Other borrow pits will require planning permission' add sentence: When a new or improved track is proposed on the route of an existing public right of way, even if it is permitted development, any proposal to	

			change the surface of the right of way needs the consent of the Rights of Way Officer at the Highway Authority (your County or Unitary authority).	
85	**CCC**	**5**	Change reference in relation to Eden District Council **Response:** Accept. Changes proposed (see response to comment 24).	
86	**CCC**	**6**	Change 'guidelines' to 'policies' in paragraph 1? **Response:** Reference should be to guidelines (as written)as policies vary between authorities. No change proposed. RSS: Accept. Changes proposed (see response to comment 1a). Remove reference to RSS	
87	**CCC**	**8**	Amend sentence 1 to reflect fact that reference to SPD in LDS no longer a requirement. **Response:** Accept. Delete first sentence: 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 Local Development scheme to indicate which Development Plan Document (DPD) or saved policy it is supplementing and the timetable for its preparation and adoption. Amend second sentence to read As an SPD this document will relate to a policy within the LPA's Core strategy DPD or saved policy from a Local Plan dealing with landscape protection within the AONBB, its quality and character.	
88	**CCC**	**9**	Question reference to Govt Office Regions as these are to be abolished. **Response:** Page 9 Paragraph 2. Delete sentence 2: The North Pennines AONB is in the both the North East and North West Government Office Regions. Amend second sentence to read: The North Pennines AONB is in the both the North East and North West of England.	
89	**CCC**	**9**	Final paragraph on the statutory definition of AONBs would have more impact if put in a highlighted box. **Response:** agree	
90	**CCC**	**10**	Paragraph 1. Sentence 2 / 3 should be highlighted or in bigger text. **Response: Might read as too strident.**	
91	**CCC**	**11**	Suggest amendment to paragraph 4 on PPS and MPS	

			Response: Accept. P11, paragraph 4, sentence 1,delete section "...prepared by.....the operation of the planning system." And amend sentence to read: Planning Policy Statements (PPS) and Minerals Policy Statements (MPS) set out the Government's national policies on different aspects of spatial planning. Policies in PPSs must be taken into account in the formulation of planning policies and are a material consideration in development management decisions where relevant.	
92	**CCC**	**12**	Delete sentence "They were introduced under the provisions of.....still relevant" **Response:** This sentence covers the fact that at the time of writing PPG8 was still the relevant guidance. **CWS to discuss with CCC and decide**	
93	**CCC**	**12**	Delete sentence "Local authorities take PPS into account....planning applications" **Response:** Accept. Now covered by new text on p11 suggested by CCC – comment 91. P 12, paragraph 2, delete sentence: Local authorities take PPS into account in preparing their development plans and making decisions on individual planning applications. **Response:** Append sentence "The most relevant to development in...etc" to the previous paragraph	
94	**CCC**	**12**	Add PPS4 to list. **Resposne:** Accept. Changes proposed (see response to comment 3).	
95	**CCC**	**13**	Delete whole para. on Regional and local policies **Response:** Accept Changes proposed (see response to NCC comments on text of P 13 above).	
95	**CCC**	**13**	Amend para 3 to read Local Planning Authorities are now *working towards producing* Local development Frameworks (LDF). **Response:** Prefer changes to text proposed in response to NCC comments on page 13 as this helps explain the current situation which includes both saved policies form District Local Plans and emerging LDFs. **CWS to decide.**	
96	**CCC**	**13**	Add (except for SPD) to paragraph 3 final sentence. **Response:** Accept. Para 3, amend final sentence to read: The documents being prepared (other than SPDs) are identified in each council's Local Development Scheme.	
97	**CCC**	**13**	Change SPD para 1 to omit reference to SA in sentence 1	

			Delete sentence 2. Add 'They amplify existing policy' to sentence 3. **Response:** Accept. Changes made in response to EDC comment 25 Accept. Changes made in response to NCC comments. Accept. P 13, Para 3, amend sentence 3 to read: They amplify existing policy and should be in conformity with, and clearly cross-referenced to, the relevant DPD (or 'saved' local plan) policies they support.	
98	**CCC**	**21**	Bullet point 5 replace 'falling' with 'being located within' **Response:** Accept. Page 21, bullet point 5 amend to read: Where trees are likely to be affected find out if they are protected by Tree Preservation Orders or by being located within a Conservation Area.	
99	**CCC**	**35**	Typo Para. 3, sentence 1 principle should be principal **Response:** Noted. Page 35, Para 3 correct spelling to read: The Environment Agency is the principal regulatory body	
100	**CCC**	**44**	Delete reference to RSS. **Response:** Accept. Changes have already been made in response to new policy environment	
101	**CCC**	**46**	Change Bullet point 9 to read "The character and setting of listed buildings, conservation areas and scheduled monuments is especially sensitive to changes around them" **Response:** This would not conform to the tenor of the listed impacts which refer generally to the potential impacts of development rather than the sensitivities of receptors. The latter should be dealt with under Environmental Resources Propose no change to P46, but Page 25 Para 3 add final sentence. All of these designated sites, buildings and areas are sensitive to changes in their visual environment.	
102	**CCC**	**47**	Query – should positive and negative impacts be separated? **Response:** The existing approach where the distinction isn't made is preferred as it creates a more neutral tone and caters for some entries where the valency of impact is ambiguous	
10	**CCC**	**56**	Add paragraph.	

3			PPS4: Planning for Sustainable Economic Growth sets out Government Policy for economic development. With regard to rural areas Policy EC6 states that the countryside should be protected for a range of reasons, and that economic development in the open countryside should be strictly controlled. However, LPAs are encouraged to support diversification for business purposes that are consistent in their scale and environmental impact with their rural location. **Response:** Accept. Page 56. Add final paragraph: PPS4: Planning for Sustainable Economic Growth sets out Government Policy for economic development. With regard to rural areas Policy EC6 states that the countryside should be protected for a range of reasons, and that economic development in the open countryside should be strictly controlled. However, LPAs are encouraged to support diversification for business purposes that are consistent in their scale and environmental impact with their rural location.	
104	**CCC**	**58**	Add sentence: PPS4 sets out Policy EC7: Planning for Tourism in Rural Areas which states that LPAs should support sustainable rural tourism and leisure developments that benefit rural businesses, communities and visitors. **Response:** Accept. Page 58. Final paragraph: amend final sentence to read: In determining such applications LPAs must have regard to the requirements in PPS4 (EC7) that they should support sustainable rural tourism and leisure developments that benefit rural businesses, communities and visitors, and PPS7 (21) that the conservation of the natural beauty of the landscape and countryside should be given great weight in development control decisions in the AONB.	
105	**CCC**	**69**	Para 2 sentence 3 Accept. Page 69, Para 2 sentence 3 delete *and consent from* In Conservation Areas certain works to trees, including felling, require notification to, and consent from, the local planning authority remove phrase 'and consented from' **Response:**	
106	**CCC**	**79**	DPD delete reference to RSS **Response:** Accept: Changes also made in response to NCC comment 20	
107	**CCC**	**80**	RSS: delete entry. **Response:** Accept. Page 80, Para 2: Delete paragraph 2: Regional Spatial Strategy	
10	**CCC**	**85**	Update CCC references	

8			**Response:** Accept. Page 85 amend Carlisle City Council entry to read: Trees and Development SPD 2009. Countryside Design SPD 2010. Designing Out Crime SPD 2009. NP AONB Agricultural Buildings Design Guide (currently under review), NP AONB Design, Maintenance and Adaptation of Rural Buildings (currently under review).	

Appendix 2: Building Design Guide.

1	**NCC**	**0**	1.In view of the recent revocation of Regional Spatial Strategies on July 6, 2010 references to RSS should be removed throughout the design guide. 2.Further reference to safeguard archaeological interests should be included and early pre-application consultation with the County Archaeologist and Conservation Officer is recommended. Potential developments need to be considered for their direct (physical) and indirect (visual) impact on standing and below ground archaeological remains. Where assessment and evaluation work is required, this will need to be completed at a pre-application stage, in line with the new PPS5. Archaeological mitigation work – excavation, watching brief and/or building recording can be carried out as a planning condition. **Response:** Noted. We will reflect the loss of RSS wherever it was mentioned. We note the reference to early consultation with archaeologists and acknowledge the different forms of impact (which apply to many other things as well as archaeology). This has been picked up at several points throughout the text.
2	**NCC**	**11**	Pages 11-12 Page 11 would benefit from minor change to make it clear that PPG7 was replaced by PPS7 and that many sections of PPS7 were deleted and replaced by the new PPS4 in December 2009. In view of the ongoing changes to national policy it might be advisable to simplify this section by being less specific about individual national policy documents and suggest that up to date information is available for example from Government websites or from local authority planning services. However if you wish to continue to list specific planning policy guidance it should be noted that: PPS5 has replaced PPGs 15 and 16; the PPS1 supplement is no longer a draft; and the new PPS4 includes policies amongst others relating to planning for economic development and tourism in rural areas. Given that waste management developments are one of the key developments addressed in the guidelines perhaps the list of relevant national guidance should include reference to PPS10: Planning for Sustainable Waste Management. **Response:** This section will be redrafted comprehensively to reflect the current situation. **NOTE TO EDITOR:** Replace this entire section: P 11. Legislation and national Policies up to and including Supplementary Planning Documents with the final revised version of the equivalent section in the Planning Guidelines.
3	**NCC**	**24**	The longhouse illustration on this page is duplicated with two different titles. **Response:** Noted. **NOTE TO EDITOR:** Refer to original document and insert correct image.
4	**NCC**	**28**	Whilst reference is made to the Tynedale Landscape Character Assessment (LCA)

			perhaps reference could be made here to the fact that the County Council is currently working on the Northumberland LCA. **Response:** Accept. The Northumberland LCA is in advanced stages of preparation and will supersede the Tynedale Assessment. **NOTE TO EDITOR:** Page 28: last two lines – delete reference to Landscape Character Assessment of Tynedale District and add: The Northumberland Landscape Character Assessment. www.northumberland.gov.uk
5	**NCC**	**44**	PP44, 48, 49 It would be useful to include a cross reference to page 76 of the guide and also to suggest that consideration should be given to the potential impact a proposed extension, large porch, conservatory or sun-room may have to below ground archaeological remains. **Response:** Accept. **NOTE TO EDITOR:** Page 43. Under 'Respecting Character' add new final paragraph – or insert in new tone box **(CWS to decide)** Alterations and extensions can have impacts on archaeology, protected species, and established vegetation. Refer to the guidance on pages 76, 62, and 87 and consult your local authority archaeologist, ecologist, tree officer or landscape architect at an early stage. **Page numbers may change on editing and will need to be checked**
6	**NCC**	**53**	1.The guide should state that pre-application consultation with the County Archaeologist and Conservation Officer is recommended. It would be useful to include this information is the green box so that the level of potential work is highlighted. 2.Where it is necessary to more fully understand the significance and character of a building, historic building assessment should be required by a suitably qualified specialist. This work will need to be completed at a pre-application stage in line with the new PPS5 policies HE6 and 8. Where there is sufficient understanding of the significance and character of the building, a record of the building may be required prior to its conversion. The recording work can be carried out as part of a planning condition as per PPS5 policy HE12 by a suitably qualified specialist. **Response:** 1 Accept. **NOTE TO EDITOR:** Page 53. In tone box add new first bullet point: Consult your County Archaeologist and LPA Conservation Officer at an early stage. Add new final bullet point Conversions can have impacts on protected species. Refer to the guidance on page 62 and consult your local authority ecologist at an early stage. **Page numbers may change on editing and will need to be checked** 2. Accept

			NOTE TO EDITOR: Page 53. Second paragraph, Delete second sentence: This will especially be the case for buildings of architectural and historic merit Replace with: Where it is necessary to more fully understand the significance and character of a building, an historic building assessment will be required which needs to be undertaken by a suitably qualified specialist. This work will need to be completed at a pre-application stage in line with PPS5 policies HE6 and 8. Where there is sufficient understanding of the significance and character of the building, a record of the building may be required prior to its conversion. The recording work can be carried out as part of a planning condition as per PPS5 policy HE12 and should be undertaken by a suitably qualified specialist.
7	**NCC**	**63**	PP 63 and 70 The guide should state that consideration should be given to the potential impact a proposed new building may have to below ground archaeological remains. Again this might include a cross reference to page 76 of the guide. **Response:** Accept. Archaeology is mentioned later in the same section but an early reference could be useful and especially if combined with reference to other resources. **NOTE TO EDITOR:** After the tone box add new sentence: New building can have impacts on archaeology, protected species, and established vegetation. Refer to the guidance on pages 76, 62, and 87 and consult your local authority archaeologist, ecologist, tree officer or landscape architect at an early stage. **Page numbers may change on editing and will need to be checked**
8	**NCC**	**76**	The guide should state that to comply with the new PPS5, if assessment or evaluation is required, it will need to be carried out by suitably qualified professionals at a pre-application stage as per PPS5 policies HE 6 and 8. Early pre-application consultation with the County Archaeologist is therefore recommended. Mitigation work such as excavation and/or watching brief can usually be dealt with by a planning condition as per PPS5 policy HE12. **Response:** Accept. This generic section on archaeology falls within the 'new farm buildings' sections and should arguably occur earlier in the section on new building **(CWS to confirm).** **NOTE TO EDITOR:** P76, Paragraph1, amend final sentence to read Where the archaeologist indicates that there are reasonable grounds for assuming that a site has archaeological potential, local planning authorities will require a developer to arrange for an archaeological field evaluation to be carried out before determining the application. Add new sentence following on: If assessment or evaluation is required, it will need to be carried out by suitably qualified professionals at a pre-application stage to comply with PPS5 policies HE 6 and 8. Early pre-application consultation with the local authority archaeologist is therefore

			recommended. Mitigation work such as excavation and/or watching brief can usually be dealt with by a planning condition as per PPS5 policy HE12. Move entire archaeology section to P69/70 after **Windows and Walls** and before **New Farm Buildings** Correct capitalisation of paragraph heading to: Archaeology and Historic Features
9	**NCC**	**78**	The guide should state that when siting a new building, consideration should be given at a pre-application stage to the indirect (visual) impact the building could have on designated heritage assets such as Scheduled Ancient Monuments and Listed buildings as per PPS5 policies HE1, 6, 8 and 10. Pre-application consultation with the County Archaeologist and Conservation Officer is recommended **Response:** Accept. **NOTE TO EDITOR:** Add new paragraph to the newly moved **Archaeology and Historic Features** section: When siting a new building, consideration should be given to the visual impact the building could have on designated heritage assets such as Scheduled Ancient Monuments and Listed buildings (as per PPS5 policies HE1, 6, 8 and 10). Pre-application consultation with the local authority archaeologist and conservation officer is recommended
10	**NCC**	**86**	The landscape detail section starting on this page could usefully include reference to consideration of soil conservation in line with national guidance from Defra: Safeguarding our soils: a strategy for England, September 2009 and Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, September 2009 both of which reflect the 2006 EC Thematic strategy for Soil Protection Communication. **Response:** Accept. More detailed guidance on soils is contained within the planning guidelines. It is proposed to reference that here rather than repeat it. **NOTE TO EDITOR**: Page 86 add new paragraph: **Soils** Soils are a finite resource and should be conserved carefully and re-used appropriately. Detailed guidance on the conservation of soils can be found in the North Pennines AONB Planning Guidelines.
11	**NCC**	**88**	This should include a recommendation for early consultation with the relevant County Archaeologist. **Response:** Accept. The reference to taking advice on archaeology could be amplified. **NOTE TO EDITOR**: Page 88. Centre column, first paragraph: after …and avoid planting on sensitive areas" add new sentence. Consult your local authority ecologist and archaeologist at an early stage.

12	**NCC**	**110**	PP110 and 111 W The guide should state that consideration should be given to the potential indirect (visual) impact that renewable energy may have on designated heritage assets including Scheduled Ancient Monuments and listed buildings as per PPS5 policies HE1, 6, 8 and 10. Early pre-application consultation with the County Archaeologist and Conservation Officer is recommended. **Response:** Accept. The potential impacts of renewables technologies is not dealt with in this section and should be. More detail is contained in the Planning Guidelines which should be referenced. NOTE TO EDITOR: Page 109, **Renewable Energy**, add new final paragraph: Renewable energy installations can have physical or visual impacts on other environmental resources including heritage assets such as Scheduled Ancient Monuments and listed buildings, or on protected species or established vegetation. Refer to the guidance on pages 76, 62, and 87 and consult your local authority archaeologist, conservation officer, ecologist, tree officer or landscape architect at an early stage. Further guidance on these technologies can be found in the North Pennines AONB Planning Guidelines. Page 111. Delete sub-header Alternative technologies with minimal visual impact include: and put sub-headers Biomass, Geothermal and Micro-hydro in capitals for consistency with earlier sub-headers. **NOTE to CWS** we haven't got a section here dealing with air-source heat pumps. We probably should as they are increasingly popular & typically bolted to the side of buildings
13	**CPRE**	**0**	There are clear guidelines as to what is considered acceptable and what is not. Clarity permits consistency and fairness. It also ensures applications received are sensible ones. The document clearly takes account of modern farming needs and is pragmatic in its response. The offering of suggestions is commendable. The best way to preserve the uniqueness of the area is to ensure it is a desirable place for people to live and work. Adapting to changing conditions is essential. The countryside cannot be fossilised, it must be allowed to evolve in a sensible manner and the plan's looking to the future is essential. The flexibility included in the plan is a major assistance in this looking to the future; It is noted the document is generally indicative and only occasionally prescriptive. This gives opportunity for imaginative designs to come forward which are still within acceptable guidelines; We are pleased to find consideration of trees throughout the document; We are delighted to find consideration of light pollution a matter of importance to C.P.R.E for many years; It is noted the document goes beyond pure design and includes items such as the recycling of building materials. Good design is a complex subject and consideration of wider issues at the design stage is positive way of encouraging the best of design **Response:** All comments noted. No amendments sought.
14	**CPRE**	**60**	Wind turbines – It is noted that there is consideration of small turbines, but what of the

			large ones? If there is no policy there is a danger wind developers will consider then acceptable. It is noted the "Planning Guidelines" includes wind turbines so if this is the policy that will cover large turbines and wind farms it will be acceptable. What matters is that wind turbines are satisfactorily covered somewhere in the Local Development Framework policies. Wind turbines – It is noted that whilst consideration is given to efficiency there is no reference to the effect they can have on residential amenity, e.g. noise, flicker. These issues can make turbines unhealthy companions and need consideration. The cumulative effect of a number of turbines also needs consideration. **Response:** The Planning Guidelines deal with small scale wind energy development. They do not deal with commercial scale development as it is set out in the text that these are not considered appropriate in the AONB. The Building design guide only deals with micro-renewables that might be closely associated with buildings. No change proposed.
15	**EDC**		Eden intends to adopt the document as SPD so the final paragraph needs amending. **Response:** final para amended to reflect this.
16	**EDC**		SPDs are no longer required to be the subject of a sustainability appraisal so the reference should be deleted. **Response:** Accept. This section will be redrafted comprehensively to reflect the current situation. See response to comment 2
17	**EDC**		Timetable for SPDs no longer has to be shown in LDSs **Response:** Accept. This section will be redrafted comprehensively to reflect the current situation. See response to comment 2
18	**EDC**		Reference to PPG15 should be replaced by PPS5 Planning for the Historic Environment **Response:** Accept. This section will be redrafted comprehensively to reflect the current situation. See response to comment 2
19	**EDC**	**17**	'T' missing from title **Response: NOTE TO EDITOR**: Correct title to read: The Derwent valley
20	**EDC**	**19**	Term appears twice, and on P26. Use Eden Valley. Additional blank line in para 2. **Response: NOTE TO CWS:** The term Vale of Eden is used in this document rather than Eden Valley which EDC suggest. The term Vale of Eden has been used in the past in the AONB – for example in the North Pennines Landscape LCA by LUC – and is more descriptive of the topography – which is a vale rather than a valley. If you want to go with EDC's request – and it is their patch so presumably they have good reason – then do the following: **NOTE TO EDITOR**: Page 26: header **and** Para 1 Sentence 2, **and** Page 26 Para 2 final sentence : replace phrase Vale of Eden with Eden Valley.

			Page 19, Para 2 – formatting error: delete blank line between "…patchwork of fields of." and "…varying size.
21	**EDC**	**24**	Same longhouse pic used twice **Response:** Noted: see response to comment 3
22	**EDC**	**26**	para 2 - 'should' **NOTE TO CWS:** can't find what this refers to. Check source?
23	**EDC**	**35**	PP35 and 37 Mortar and render mixes. Rations should not be specified as the appropriate mix will vary and, in many cases, it may be inappropriate to include any cement in the mix. **Response: NOTE TO CWS: You might want to have a think on this.** The most appropriate mix for a given situation does vary but it would be useful to give some guidance on mixes. While in an ideal world people would seek advice from specialists and architects before re-pointing, they rarely do. As a result they often use inappropriate over-strong and often lime-free mixes. The guidance here is copied from the Northumberland National Park Re-pointing guide. Stronger advocacy of hydraulic and non-hydraulic lime mortars may be the best approach, although lime mortars with cement will continue to have applications. If we decide to stay away from mixes altogether we should say: **NOTE TO EDITOR**: Page 35. Amend Bullet Point 3 to read: Choose a mortar mix to suit the walling material and the degree of exposure. Take advice from a specialist or your local authority Conservation Officer.
24	**EDC**	**57**	Windows - Suggest altering 'will' to 'may'. "In historic buildings multi-pane windows may need to be single glazed to retain traditional slim glazing bars" **Response:** Accept. **NOTE TO EDITOR**: Page 57: Windows paragraph – amend final sentence to read: In historic buildings multi pane windows may need to be single glazed to retain traditional slim glazing bars.
25	**EDC**	**95**	para 4 Hedgerow Regulations should have cap H **Response:** Accept. **NOTE TO EDITOR**: Page 95: Para 2. Sentence1. Capitalise the word Hedgerow in Hedgerow Regulations.
26	**EDC**	**87**	1TREES In general this section is too detailed and overly prescriptive. Whilst many of these matters are valid considerations, all of these matters are aspects that an arboriculturist or landscape architect can advise on with regard to the specific constraints and issues relating to individual schemes. 2 The advice being given regarding species and future potential issues, such as tree heights and proximity to dwellings and structure, honeydew from limes and sycamores, trees near walls and drains etc should be reviewed. There has to be an acceptance that

			any trees near structures or paths can ultimately cause damage or disruption but this can often be repaired without the need for tree removal. It may also be the case that the removal and replacement of the tree is a planned process. Similarly, the advice regarding trees with heavy leaf fall - in particular Horse Chestnuts - (leaves on the road and in gutters) can easily be misinterpreted, whilst it is a valid consideration it is not a reason not to plant them. 3. The 2/3 mature tree height rule for new planting is misguided and, although based on NHBC, it is too formulaic. Many trees in the AONB will only achieve half the potential height for the species due to the climatic conditions. It would be better to list the potential issues but steer clear of too many specifics. 4 The section covering the proximity of certain species to typical domestic dwellings and drains is also too prescriptive. Well constructed drains should have nothing to fear from tree roots and building foundations which are very unlikely to be affected unless situated on shrinkable clays. 5 The section relating to existing trees could be amended. It says the right things about BS5837 surveys but later mentions "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". The Root Protection Area should be considered off limits for any work unless as a last resort and then only if it can be done without any effect to tree roots. 6 It also doesn't mention there may be a need for an Arboricultural Implications Assessment for different design options to support the final submitted design. 7 The advice for trees in Conservation Areas is too narrow. Not only is permission required for any work to a tree over the designated size, damage to trees is also an offence and this should be made clearer. The document should also state most works to trees in conservation areas require notification rather than certain work. It does this in the appendix but not in the main text. 8Appendix 4 should make a reference to seeking further guidance from the local planning authority tree officers for Tree Preservation Orders, trees in conservation areas etc. 9.There is a balance to be struck in the redrafting of this section between providing a basic level of useful information without providing excessive and restrictive detail. If Eden is going to adopt this as an SPD these matters all need to be addressed so that this policy document is consistent with the approach taken by the Council. **Response:** 1. It is the purpose of this design guide to give detailed advice where possible rather than referring readers to the need to get expert advice from other parties. Landscape design and arboriculture are not noticeably more technical subjects than architecture and it would be unbalanced for the document to hold back from giving detailed guidance on these issues where it can. 2. The guidance here is taken directly from the published guidance of a partner authority (DCC). Some of the issues raised may be as much a product of the brevity of the guidance – too little qualifying detail rather than too much. It is not therefore proposed to

			remove detail but to qualify it further, or to change the tenor of any advice that sounds too prescriptive. **NOTE TO EDITOR**: Page 88, Column 2 Para 2. Add new sentence after "…drains, if adequate space is not allowed. Well constructed modern foundations and drains should not be affected but older features may be more vulnerable. Amend followings sentence to read: Taking specialist advice from a landscape architect, arboriculturalist or forester will help you avoid these pitfalls and deliver a well designed and cost-effective scheme. Page 91. Amend bullet points 4 and 5 to read: • Some species, such as horse chestnuts, can produce heavy leaf fall. This should be a consideration when planting close to roads and paths or drainage gullies. • Trees such as limes and sycamores are affected by sugar secreting aphids which can cause mildew below them. This should be a consideration when planting close to car parks or seating areas. Page 91 Column 2, Para 2. after "…to be moved or distorted." Add new sentence. This is unavoidable in some situations and usually best dealt with through minor repairs to the structures. For many people this is a small price to pay for the pleasure of living with a tree and shouldn't lead to overly conservative planting practices. 3. The 2/3 mature height rule is reasonable 'rule of thumb' for new planting and certainly for larger species. As it is expressed as a fraction of anticipated mature height it can apply equally to any area. There is a risk that readers may go to national data for mature tree heights and therefore be overly conservative about planting distances: **NOTE TO EDITOR**: Page 91 Column 2 Para 1. Change second sentence to read: As a rule of thumb, larger species should be planted no nearer to a dwelling than two thirds of their expected mature height. This will depend on soil and situation: on many sites in the North Pennines trees will never attain the potential heights quoted for them in national data. Take advice from your local Tree Officer who will have local knowledge. 4. The guidance here again is taken directly from the published guidance of a partner authority (DCC). While modern building foundations and drains are less susceptible to these impacts those of existing buildings and older drains may not be. As this guidance deals as much with conversion / extension as new build this remains a pertinent issue. We have seen listed structures damaged by un-informed tree planting. **NOTE TO EDITOR**: Page 91 Column 2 Para 1. Create new paragraph break before phrase "Roots are opportunistic…etc After '…and joints in drains." Add new sentence: This is not an issue for new buildings where well-designed and properly constructed modern drains and foundations should be impervious to the effects of tree roots, but may be a consideration when planting close to older buildings and structures.

			The list of the more aggressively rooting species may be misleading as in the DCC guidance it is backed up by a table of high water demanding species. Rather than having readers think that all varieties of those species are problematic it should be simplified **NOTE TO EDITOR**: Page 91 Column 3. Amend sentence 2 to read: Larger varieties of willow, poplar and coniferous species should be used with caution. 5. Accept. **NOTE TO EDITOR**: Page 87, Column 3 Para 2. Delete second sentence. 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. Replace with new sentence. The design of ancillary features such as paving and paths, garden walls, changes in level or drainage should have regard to the rooting area of the tree which should be avoided entirely unless there are no practical alternatives, and then only if the works can be carried out without any adverse affect on tree roots. 6. Accept **NOTE TO EDITOR**: Page 87: Column 2 – end of column after ….Planning Application. Add new para. The local planning authority may request an Arboricultural Implication Assessment (AIA) where they need to satisfy themselves that all factors have been duly considered in the design process and that the development will not prove detrimental to the retained trees and hedges. The AIA will also address issues such as the long term effects of changes to surface levels or the future need to prune or remove trees and hedges because they cast shade or encroach upon property. The Arboricultural Implication Assessment must be carried out by a suitably qualified arboriculturalist with experience of trees on development sites. 7 Accept. **NOTE TO EDITOR**: Page 87 Para 3: amend to read: 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 most works to trees, including felling, require notification to the local planning authority. Damage to trees is an offence. 8 Accept. **NOTE TO EDITOR**: Appendix 4 Page 121: Insert new opening paragraph:

			Many trees and hedges are protected by law. Before doing any works that would affect trees or hedges on or around your development site you should consult your local authority tree officer. 8. The section as re-drafted should meet those criteria. It should be noted that much of the material in the guidance is taken from the published guidance of a partner authority (DCC) and consistency with their approach is also a consideration.
27	**EDC**	**0**	Bullets should perhaps be numbers instead, for ease of reference. **Response:** There is some merit in this as it will make it easier to quote in responses to planning applications. **NOTE TO EDITOR**: replace all guidelines bullets with numbers pre-fixed by letters relating to the relevant section. NB1, NB2 etc for New Building etc.
28	**EDC**	**0**	Reference to PPG15 should be replaced by PPS5 Planning for the Historic Environment **Response:** Accept. See response to comment 2.
29	**EDC**	**0**	Timetable for SPDs no longer has to be shown in LDSs **Response:** Accept. See response to comment 2.
30	**EA**	**75**	Watercourse: Further guidance can be found on the Code of Good Agricultural Practice for the Protection of Water published by Defra Suggest: Further guidance can be found in the 'A Code of Good Agricultural Practice for farmers, growers and land managers – Protecting out Water, Soil and Air' produced by defra or by contacting the Environment Agency directly. **Response:** Accept. **NOTE TO EDITOR**: Page 75: body text: add new sentence: Further guidance can be found in the 'A Code of Good Agricultural Practice for farmers, growers and land managers – Protecting out Water, Soil and Air' produced by Defra, or by contacting the Environment Agency directly.
31	**EA**	**75**	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. SUGGEST • It is good practice to leave an 8 metre easement between a new building and any watercourse, this reduces the chances of potential pollution from spillages and seepage entering the watercourses either directly or through existing drainage systems and can reduce flood risk. • Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9) states 'Networks of natural habitats provide a valuable resource. They link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment.'

			• Policy LE4 River Corridors of the Carlisle District Local Plan 2001 – 2016 states: 'that river corridors are a great importance for water resources, water quality, nature conservation, fisheries and recreation and that they often make a significant contribution to the character of the landscape.' This Policy also states 'Permission will not be granted for developments which are likely to have a detrimental impact on nature conservation, public access, the quality of the landscape or recreation facilities found within the river corridors'. • Any works within 8 metres of a watercourse may be subject to byelaws and may require the prior written consent of the Environment Agency (EA). • The consent of the Environment Agency is required for the culverting and/or diversion of any watercourse however, there is a presumption against culverting therefore the EA would be likely to object. • The Environment Agency encourage any opportunities to remove an existing culvert as this reduces potential flood risk and increases biodiversity. • National Planning Policy recommends avoiding any development in areas at risk of flooding. Table D2 of Planning Policy Statement 25: Development and Flood Risk (PPS25) states that land and buildings used for agricultural use is classed as 'less vulnerable' development . Less vulnerable development is not permitted in Flood Zone 3b, functional floodplain but is permitted in Flood Zones 3a high probability, Flood Zone 2 medium probability and Flood Zone 1 Low probability. All development proposal in these zones should be accompanied by a Flood Risk Assessment (FRA), the minimum requirement for the FRA can be found in Annex E of PPS25. **Response:** Accept. This section is thin and needs comprehensive re-write **NOTE TO EDITOR**: Page 75: Watercourses: replace entire text with the following. Watercourses are of great importance for water resources, water quality, nature conservation, fisheries and recreation, and often make a significant contribution to the character of the landscape. Adverse impacts on watercourses, including both direct physical impacts and impacts through pollution or changes to their hydrology, should be avoided. It is good practice to leave an 8 metre easement between a new building and any watercourse. This reduces the chances of potential pollution from spillages and seepage entering the watercourse either directly or through existing drainage systems and can reduce flood risk. Any works within 8 metres of a watercourse may be subject to byelaws and may require the prior written consent of the Environment Agency (EA). Culverting of watercourses should be avoided. The consent of the Environment Agency is required for the culverting and/or diversion of any watercourse. There is, however, a presumption against culverting, and the EA would be likely to object in most circumstances. Opportunities should be taken to remove existing culverts where possible as this reduces potential flood risk and increases biodiversity. National Planning Policy recommends avoiding any development in areas at risk of

			flooding. Table D2 of Planning PPS 25: Development and Flood Risk states that land and buildings used for agricultural use are classed as 'less vulnerable' development. Less vulnerable development is not permitted in Flood Zone 3b (the functional floodplain) but is permitted in Flood Zones 3a (high probability) Flood Zone 2 (medium probability) and Flood Zone 1 (low probability). All development proposals in these zones should be accompanied by a Flood Risk Assessment (FRA), the minimum requirement for the FRA can be found in Annex E of PPS25. 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 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 in 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. Any farm in England and Wales that makes or stores silage or stores slurry or stores more than 1,500 litres of fuel used for agricultural purposes and has storage facilities that were constructed or subsequently altered after 1991 will need to conform to the 'Control of Pollution (Silage, slurry and Agricultural Fuel Oil) Regulations 1991. A summary of requirements can be found on the Environment Agency's website: wwwenvironmentagency.gov.uk **NOTE TO EDITOR**: all of the above text is now body text – no tone boxes or bullet points.
32	**EA**	**75**	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. SUGGEST • Any farm in England and Wales that makes or stores silage or stores slurry or stores more than 1,500 litres of fuel used for agricultural purposes and has storage facilities that were constructed or subsequently altered after 1991 will need to conform to the 'Control of Pollution (Silage, slurry and Agricultural Fuel Oil) Regulations 1991. A summary of requirements can be found on the Environment Agency's website: http://www.environment-agency.gov.uk/netregs/businesses/agriculture/61889.aspx **Response:** Accept: Changes made above.
33	**EA**	**83**	Change title to Silage Stores and Effluent Handling (this is so that all silage stores are covered not just clamps) **Response:** Accept. This section will be comprehensively redrafted: see changes proposed below in response to comment 37
33	**EA**	**83**	Change the The design and construction of silage stores must ….to 'The design, construction and use of silage stores must …. **Response:** Accept. This section will be comprehensively redrafted: see changes proposed below in response to comment 37

35	**EA**	**83**	Change 'siting of the clamp should be considered carefully in respect of the surrounding landscape' to 'The siting of the silage store must be considered carefully in respect of the surrounding landscape' **Response:** Accept. This section will be comprehensively redrafted: see changes proposed below in response to comment 37
36	**EA**	**83**	Add additional paragraph. Livestock slurry, silage effluent or manure must not enter rivers, streams or other watercourses. A pollution offence will have been committed if polluting effluent enters surface waters or groundwater **Response:** Accept. This section will be comprehensively redrafted: see changes proposed below in response to comment 37
37	**EA**	**84**	Change 'the Environment Agency will need to be consulted on proposals and it is essential that silage liquor is properly collected and stored. TO 'Advice should be sought from the Environment Agency if you intend to construct a new , reconstructed or enlarged agricultural structure (silage effluent tank, slurry store, reception pit) as stated in Section 11 of the Control of Pollution (Silage, slurry and Agricultural Fuel Oil) Regulations 1991: Notice of construction etc. 11. A person who proposes to have custody or control of any relevant substance which is to be kept or stored on a farm in a silo, slurry storage system or, as the case may be, fuel storage area constructed, substantially enlarged or substantially reconstructed on or after l st September 1991 shall serve notice on the Authority specifying the type of structure to be used and its location at least 14 days before it is to be used for such keeping or storage. **Response:** Accept. This section will be redrafted to make a clearer distinction between guidance and regulatory matters. It is proposed to integrate silage storage and waste storage due to the similar regulatory issues. NOTE TO EDITOR: Page 83: **Silage clamps**. Change subheading to **Silage clamps, effluent and waste handling** Replace paragraph with. The design, construction and use of silage stores, and facilities for slurry and dirty water, is heavily constrained by the need to avoid pollution from effluent. Anyone proposing to construct a new, reconstructed, or enlarged agricultural structure (silage effluent tank, slurry store, reception pit) must notify the Environment Agency under Section 11 of the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991. Manure stores are outside of the scope of the Regulations but liquid seepage is

			considered to be dirty water and therefore should be channelled to suitable storage. Livestock slurry, silage effluent or manure must not enter rivers, streams or other watercourses. A pollution offence will have been committed if polluting effluent enters surface waters or groundwater (see also Watercourses above). The siting of the silage and other stores must be considered carefully in respect of the surrounding landscape. The construction of clamps, tanks and pits can affect important habitats or species, landscape or archaeological features. Care should be taken to avoid sensitive sites. Add new first three bullets: • Take advice from the Environment Agency at an early stage in planning your proposals • Avoid sensitive locations: consult your local authority archaeologist, ecologist, tree officer or landscape architect. • Where possible select sites that are screened from sensitive view points (roads, footpaths, other properties) by topography, vegetation or existing farm buildings Delete final bullet point The Environment Agency will need to be consulted on proposals and it is essential that silage liquor is properly collected and stored. Delete Waste Storage sub-header and the paragraph that follows it. Merge bullet points with those on page 84.
38	**EA**	**84**	Change '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' TO • As with silage liquor, it is essential that liquid run-off is detained and subsequently disposed of without the run-off entering a watercourse or rainwater drainage system. • The base of any store should be sloped so that any liquid runs off into a collection channel. • Such liquids should be collected in a suitably sized tank and be directed to a slurry store. • A clean and dirty water separation system will minimise the volume of polluting liquids. **Response:** Accept. **NOTE TO EDITOR**: Page 84. Amend final bullet point to read: • As with silage liquor, it is essential that liquid run-off is detained and subsequently disposed of without the run-off entering a watercourse or rainwater drainage system. Add new final bullet points: • The base of any store should be sloped so that any liquid runs off into a collection channel. Such liquids should be collected in a suitably sized tank and be directed to a slurry store. A clean and dirty water separation system will minimise the volume of polluting liquids.
39	**EA**	**101**	Change 'night time tranquillity and dark skies and also reduce harmful effects on ecology

			(i.e. bat roosts),' TO ….. to help maintain night time tranquillity and dark skies. The negative influence of the excess of light affects organisms which are active at night e.g. insects, mammals and invertebrates. Birds also suffer from excess light. **Response:** Accept. **NOTE TO EDITOR**: Page 101. Para 2 after "…commercial premises." And before "There are…" insert: The negative influence of the excess of light affects organisms which are active at night e.g. insects, mammals and invertebrates. Birds also suffer from excess light. Amend final sentence to read: 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 reduce harmful effects on ecology whilst reducing energy consumption.
40	**EA**	**101**	Change 'Direct light only where it is needed, downward rather than upward, or focused on the particular task.' TO Direct light only where it is needed, downward rather than upward, or focused on the particular task and wherever possible trees should not be directly illuminated. **Response:** Accept. **NOTE TO EDITOR**: Page 101. Add new third bullet point: • Avoid the direct illumination of trees.
41	**EA**	**104**	Overall section titled 'waste' with two subheadings: • Minimising Waste – content of which the EA support **Response:** Accept. It is proposed to create a new subheading **Handling waste responsibly**
42	**EA**	**104**	Change section on movement of waste. • If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably authorised facility. • The Duty of Care regulation for dealing with waste materials are applicable for any off-site movement of wastes. The developer as producer therefore has a duty of care to ensure all materials removed go to an appropriate licensed disposal site and all relevant documentation is completed and kept in line with regulations. • If any controlled waste is to be used on site, the applicant will be required to obtain the appropriate exemption or authorisation from the Environment Agency.

			More specific advice on waste movement can be found on the Environment Agency's website using the following link: http://www.environment-agency.gov.uk/business/topics/waste/default.aspx • In England it is a legal requirement to have a Site Waste Management Plan (SWMP) for all new construction projects worth more than £300,000. Further information on the SWMP can be found at www.netregs-swmp.co.uk **Response:** Accept. There is currently no section on movement of waste. It is proposed to create a new sub-heading **Handling waste responsibly**. **NOTE TO EDITOR**: Page 105 Create new sub-header: **Handling Waste Responsibly** Add new text The Duty of Care regulations for dealing with waste materials are applicable for any off-site movement of wastes. The developer as producer therefore has a duty of care to ensure all materials removed go to an appropriate licensed disposal site and all relevant documentation is completed and kept in line with regulations. If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably authorised facility. If any controlled waste is to be used on site, the applicant will be required to obtain the appropriate exemption or authorisation from the Environment Agency. In England it is a legal requirement to have a Site Waste Management Plan (SWMP) for all new construction projects worth more than £300,000. Further information on the SWMP can be found at www.netregs-swmp.co.uk More advice on waste movement can be found on the Environment Agency's website: www.environment-agency.gov.uk *Note: when giving web-links, the home page is preferred as the urls of individual pages changes more frequently*.
43	**EA**	**113**	Connect to municipal sewage system for foul drainage, if possible. SUGGEST • The proposed means of foul drainage should be in accordance with Circular 03/99 'Planning requirements in respect of the use of non-mains sewerage incorporating septic tanks in new development'. **Response:** Accept. We would consider the suggested paragraph would be better as an amplification of the first sentence rather than a replacement. **NOTE TO EDITOR**: Page 113 Under **Drainage,** remove bullet points from all of the paragraphs and replace paragraphs 1 and 2 with the following text: The proposed means of foul drainage should be in accordance with Circular 03/99 'Planning requirements in respect of the use of non-mains sewerage incorporating septic

			tanks in new development'. The presumption must always be to provide a system of foul drainage discharging into a public sewer. If this is not possible taking into account all the factors in Circular 03/99 a package treatment plant may be considered (there are circumstances where a package treatment plants are unsuitable owing to sporadic occupation) and only when it is proved that the above two options are not feasible should a septic tank be considered. Some non-mains drainage systems may require an environmental permit from the EA, although certain activities are exempt from the requirements. In order to qualify for an exemption, your discharge or activity must meet certain criteria. If you can not meet these criteria you will need to apply for a permit. For more information on small discharges of domestic sewage effluent, permits and exemptions can be found on the Environment Agency's website: www.environment-agency.gov.uk To help you choose the correct sewage disposal option. Pollution Prevention Guidelines – Treatment and disposal of sewage where no foul sewer is available: PPG4 includes information about the treatment and disposal methods available, maintenance and legal requirements, a copy of which can be found can be found on the Environment Agency's website. *Note: when giving web-links, the home page is preferred as the urls of individual pages changes more frequently*
44	**EA**	**114**	Change • 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 TO • The proposed means of foul drainage should be in accordance with Circular 03/99 'Planning requirements in respect of the use of non-mains sewerage incorporating septic tanks in new development'. • The presumption must always be to provide a system of foul drainage discharging into a public sewer. If this is not possible taking into account all the factors in Circular 03/99 a package treatment plant may be considered (there are circumstances where a package treatment plants are unsuitable owing to sporadic occupation) and only when it is proved that the above two options are not feasible should a septic tank be considered. • Some non-mains drainage systems may require a environmental permit from the EA however, certain activities are exempt from the requirements. In order to qualify for an exemption, your discharge or activity must meet certain criteria. If you can not meet these criteria you will need to apply for a permit. For more information on small discharges of domestic sewage effluent, permits and exemptions please see the following link to the Environment Agency's website: http://www.environment-agency.gov.uk/business/topics/water/117481.aspx **Response:** Accept. See changes proposed above in response to comment 43.
45	**EA**	**113**	ADD To help you choose the correct sewage disposal option. Pollution Prevention Guidelines – Treatment and disposal of sewage where no foul sewer is available: PPG4 includes information about the treatment and disposal methods available, maintenance

			and legal requirements, a copy of which can be found at: http://publications.environment-agency.gov.uk/pdf/PMHO0706BJGL-E-E.pdf?lang=_e **Response:** Accept. See changes proposed above in response to comment 43.
46	**NE**	**6**	2nd paragraph There is also a need to consider protected species legislation and requirements. **Response:** Accept. Changes reflecting this are proposed in both BDG and PG documents.
47	**NE**	**7**	Adopting this guidance as a Supplementary Planning Document The local planning authorities who wish to follow this route will need to ensure compliance with any required Strategic Environmental Assessment /Habitats Regulations Assessment processes (screening stage), prior to the document being adopted as SPD. **Response:** accepted
48	**NE**	**9**	"nd paragraph There are now 33 AONBs wholly in England (The East Hampshire and Sussex Downs AONB designations were revoked on the 31 March 2010 when the South Downs National Park Designation Order can into effect) . As a result there may be a need to check the 18% figure covering England and Wales. **Response:** accepted
49	**NE**	**9**	The purposes of AONB designation were reaffirmed by the Countryside and Rights of Way Act 2000. In CA23 AONB Management Plans A Guide the Countryside Agency (now Natural England) stated the purposes of AONB as ..... Can delete sentence 'these purposes have since been endorsed by Natural England' **Response:** Accept. Changes reflecting this are proposed in both BDG and PG documents in response to NE comments on PG.
50	**NE**	**10**	Suggest add ' careful stewardship of the land and buildings'. **Response:** accept
51	**NE**	**28**	The following could be added: Countryside Character Volume 1 North East Region Northumberland LCA (to be published). Historic Landscape Character Assessment – Northumberland (published ?) Historic Landscape Character Assessment – Durham (on- going) Historic Landscape Character Assessment – Cumbria (?) **Response:** Accept. **NOTE TO EDITOR**: Page 28: add to top of list: Countryside Character: Volume 1: North East. naturalengland.org.uk Add new subheading

			Historic Landscape Character Under which add sentence. Northumberland, Cumbria and County Durham councils have prepared, or are preparing, Historic Landscape Character Assessments. For further information contact the relevant county archaeologist.
52	**NE**	**29**	Point 2 We suggest the following wording changes ' Survey your site or building and its setting to assess what features are worth keeping or protecting, and to identify any opportunities for enhancement measures, and take advice from others.....with knowledge of .....historic environment, landscape, and biodiversity. Early consultation with the local planning authority on the need for biodiversity/protected species surveys may help prevent delays in the planning application process. **Response:** Accept. **NOTE TO EDITOR**: Page 29, Point 2: Amend to read: Survey your site or building and its setting to assess what features are worth keeping or protecting, and to identify any opportunities for enhancement measures, and take advice from others with knowledge of design, building conservation, the historic environment, landscape and biodiversity as it relates to your proposals; and
53	**NE**	**34**	Re-pointing. Our regional historic environment advisor (Tom Gledhill) has suggested that you may wish to consider changing the illustration A and B, as in some areas in the North Pennines type B is actually more traditional for lime pointing. The text could perhaps suggest that the method chosen for pointing should relate to the most local 'traditional' method used for that particular area. **Response:** Our advice, and that of partner authorities and other agencies, is that pointing type B is bad practice. It is certainly a widespread practice and can be difficult to avoid on heavily weathered stone, but in most instances type A is to be preferred. It is hard to determine the extent to which type B is 'traditional' in that pointing is by its nature ephemeral & type B tends to creep in as buildings become more weathered. We would be reluctant to promote it as good practice.
54	**NE**	**35**	1. There is a need to include information in this box which highlights that bats and nesting birds often use such crevices in buildings, and there may be a need to maintain crevices in finished buildings, in line with the relevant protected species legislation. 2. 3rd point Our regional historic environment advisor suggests omitting the last section which refers to the part cement mix. Cement mix should be avoided wherever possible, due to the problems it can create with water ingress in the North Pennines. **Response:** 1. Accept **NOTE TO EDITOR**: Page 35: Add bullet point. • Bats and nesting birds often use crevices in buildings and there may be a need to

			retain some crevices to comply with the relevant protected species legislation. Re-pointing should be avoided between November and March to prevent entombing bats when they are most vulnerable, and crevices where the bottom cannot be seen should not be re-pointed. 2. Accept. Hydraulic lime mortars using cement have their place but the guidance presents an opportunity to extol the virtues of lime mortars. See changes proposed above in response to comment 23.
55	**NE**	**37**	2nd point in box Our regional historic environment advisor suggests that lime render is more appropriate in the North Pennines, and suggests deletion of reference to cement lime sand. **Response:** Accept. **NOTE TO CWS** This is a matter of philosophy as much as anything. For historic buildings pure lime mortars are the right thing. They're also arguably the best thing for traditional buildings or buildings generally in terms of flexibility & breathability. Lots of folk still use a mortar with some cement content – including most of the contractors – and arguably a 1:1:6 (or minimum 1:2:9) isn't too bad & doesn't need so much mollycoddling while it cures (which adds to costs). I'm suggesting we agree with Tom so that we act as advocates for the lime render – which is traditional and still the best – without explicitly discouraging the use of perfectly reasonable alternatives. **NOTE TO EDITOR**: Page 35. Replace Bullet point 2 If a wall is being completely rendered, or all of the render is being replaced, the best option is usually an un-gauged non-hydraulic lime mortar using well-matured lime putty and sharp and well-graded aggregate in a 1:5 ratio.
56	**NE**	**37**	Page 37-39/Page 68 Roofs/Page 109 Renewable Energy The requirements of protected species, particularly bats and nesting birds with regard to roof repairs and maintenance, and micro renewable energy installations should be referenced in these sections. A useful website on green roofs can be found at http://www.livingroofs.org/ **Response:** Accept. Suggest no change in relation to bats to page 68 which deals with the character of new roofs rather than repair. Page 109: see changes proposed in response to cmment 12. **NOTE TO EDITOR**: Page 39: Add final bullet point. • Repair works to roofs can disturb bats or nesting birds and you will need to comply with the relevant legislation (see page 62). Page 68. Add final sentence: Further information can be found on the Living Roofs website www.livingroofs.org
57	**NE**	**47**	There is a need to consider the requirements of protected species (particularly bat roost sites) with respect to the alteration of loft spaces and the implications of increased lighting and this issue again needs to be referenced in this section. **Response:** Accept. **NOTE TO EDITOR**: Page 46: Column 3: add final bullet point: Alterations to loft spaces can affect bats and you will need to comply with the relevant

			legislation (see page 62).
58	NE	53	1st paragraph We would also suggest that the local planning authorities should also be looking for opportunities for enhancement where appropriate when considering change of use applications.
59	NE	55	PP55-57 The requirements of protected species, particularly bat roosts needs careful consideration with regards to introducing daylight into roof spaces, this should be referenced in this section. **Response:** accept
60	NE	62	Page 62/Page 101 Lighting – again in particular lighting should avoid bat roost access points and flyways. **Response:** accept
61	NE	62	Do the location and positioning of satellite dishes need a mention ?
62	NE	62	Please note this should now refer to The Conservation of Habitats and Species Regulations 2010 which consolidates all previous legislation. It should be made clear that even minor repairs can kill/destroy bat roosts/bird nests. Further details on good practice with regards to survey work could be included in the suggested Appendix on Biodiversity and Protected Species (see below). Box point 2 Mitigation measures will be dependent on the species involved and the proposed use of the building. Repairs to traditional buildings may also require consideration of protected species. We have suggested that where protected species pose issues with regards to particular features such as roofs/lighting, trees etc, then this needs to be highlighted in those individual sections. Further useful information on biodiversity and protected species could be included in an Appendix, which we would willing to develop in partnership with you, please contact my colleagues Deborah Hall/Pip Kirkham to assist with this if required. We are also at an early stage of preparing draft standing advice on protected species which again would be an importance information source for a range of species. As an example, in relation to bats, the appendix could refer to some of the information below: Legislation : All species of bat are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 making all species of bat European Protected Species. Details of the legislation can be found at Wildlife and Countryside Act http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1 The Countryside and Rights of Way Act:

			http://www.opsi.gov.uk/acts/acts2000/ukpga_20000037_en_7#pt3-pb8-l1g81 The Conservation of Habitats and Species Regulations 2010 http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1
63	**NE**	**62**	Typical Habitat/Features Used: Bats use a variety of buildings and structures at different times of the year and the type of feature used is often species specific. Buildings are frequently used including churches, traditional timber framed buildings, ice houses, traditional agricultural buildings, stone and flint buildings along with residential dwellings (including modern properties). In addition, mines, caves, disused tunnels and trees also provide important roost sites. Further guidance on the features of dwellings which increase the probability of bats using it can be found within the Bat Mitigation Guidelines Survey Requirements: All surveys should be undertaken by suitably experienced, and where necessary, licensed surveyors. Good practice guidance published by the Bat Conservation Trust (Bat_Surveys-Good_Practice_Guidelines) provides comprehensive advice on how and when to undertake bat surveys and the recommended minimum survey effort and a brief summary is provided below. Bat Mitigation Guidelines : http://naturalengland.communisis.com/naturalenglandshop/docs/IN13.6.pdf Bats: European Protected Species http://naturalengland.communisis.com/naturalenglandshop/docs/SIN006.pdf Bats in buildings: A guide for building professionals http://naturalengland.communisis.com/naturalenglandshop/docs/in152.pdf Bat Surveys: Good practice guidelines http://www.bats.org.uk/download_info.php?id=379&file=BCT_Survey_Guidelines_web_final_version.pdf&referer=http%3A%2F%2Fwww.bats.org.uk%2Fpublications.php%3Fkeyword%3Dsurveys%26month%3D%26year%3D%26category%3D%26search%3DSearch Habitat Management for Bats http://www.jncc.gov.uk/page-2465 Appraisal of impact and mitigation reports - The guiding principles of impact assessment and mitigation are sequential considerations as follows: i) Avoid significant negative impacts if possible (e.g. consider timing of work, leave roosts/access unaffected) ii) Mitigate (e.g. roof space sectioned off for bats) iii) Compensate (e.g. bat boxes, bat house) iv) Enhance (hedgerow planting to connect with existing hedges/woodland
65	**NE**	**75**	This section could mention that some of the watercourses in the Eden Valley sections are part of the River Eden SSSI and SAC and that they all feed into it so, any operations

			affecting these watercourses could have an impact on the downstream site. Any operations within or near SSSI/SACs may need consent from NE.
66	**NE**	**85**	1. Landscaping Trees can also be important for bats and birds and again it is important to be aware of protected species legislation, and that works involving trees and shrubs may impact on protected species. 2. A considerable part of this section is devoted to trees. Consideration also needs to be given as to whether some sites (depending on their size and location) need a phase 1 habitat survey or risk assessment, and/or species survey. We consider that on some development sites there may be opportunities to enhance other BAP habitat such as wetlands, species rich grassland etc appropriate to the local area, and encourage other BAP species through appropriate measures such as roosting boxes etc. Some basic biodiversity principles and examples could be usefully included in this section, to 'balance' the content. **Response:** 1. Accept. See changes proposed in response to comment 67 below. 2. Accept. **NOTE TO EDITOR**: Page 87: Change hierarchy of subheading to read: **Existing vegetation** **Trees and shrubs** Add new sub-section **Wetlands and grasslands** Page 91: At end of page add new sub-section **Habitat creation**
67	**NE**	**87**	Trees may also be afforded protection because of the species utilising them (same for hedgerows) **Response:** Accept. **NOTE TO EDITOR**: Page 87: coumn 1, final para. Add final sentence. Trees and shrubs may also harbour protected species, particularly bats (see Page 62), and nesting birds and you will need to comply with relevant legislation.
68	**NE**	**90**	This section should mention that only locally native, disease free plants should be planted near watercourses to avoid spread of invasive species and water borne pathogens. **Response:** Accept. Add text on phytopthera
69	**NE**	**100**	The use of SUDS should also be recommended in this section (as in Page 113)
70	**NE**	**102**	Further Information The following could be added:

			Cumbria BAP Durham BAP Northumberland BAP Natural England website for protected species guidance Biodiversity by Design publication TCPA PPS9 Planning for Biodiversity and Geological Conservation A Guide to Good Practice Another good source of biodiversity and planning information in Cumbria is from Cumbrian Biodiversity Data Network; the Virtual Fauna of Lakeland website, http://www.lakelandwildlife.co.uk/about.htm **Response:** accept
71	**NE**	**103**	Use of Brownfield Land Please also note PPS9 paragraph 13 with regards to significant biodiversity interests on brownfield land. **Response:** Accept. **NOTE TO EDITOR**: Page 103. Column 2: at around line 11 amend to read: ...preferred option for development. Problems may be encountered such as residual pollution from previous use, and brownfield land often has significant biodiversity interests which may preclude or restrict development. In cases of ...
72	**NE**	**108**	Consumer behaviour could also be added to the box concerning pollution. **Response:** accept
73	**NE**	**110**	Box Natural England advice on bats and birds and wind turbines should be added to the box. This advises that turbines should be located at least 50m away from habitat features such as woodland or hedgerows used for foraging/commuting and bat roosts. **Response:** Accept. **NOTE TO EDITOR**: Page 110. Micro-wind bullet list: add bullet: Locate turbines with the rotor tip at least 50m away from habitat features such as woodland or hedgerows used for foraging/commuting and bat roosts.
74	**NE**	**112**	Micro hydro Turbines can have a fundamental effect on the physical character of a river, altering physical habitat provision for characteristic flora and fauna. This occurs in three main ways. 1) Alteration to geomorphology and hydraulics of the river channel 2) Alterations to the flow regime (via impounding structures to create head of water) 3) Interruption of biological connectivity including the passage of fish and invertebrates. These issues need to be considered in any proposed scheme for micro hydro.

			Response: This is covered in more detail in the Planning Guidelines – it is proposed to make a general reference to the potential impacts of RE proposals and refer readers to the Planning Guidelines for further information – see response to NCC on comment 12.
75	**NE**	**App3**	1 This could be supplemented by a list of the current Conservation Areas within the North Pennines, and an indication of those which have completed conservation area appraisals/management strategies which provide useful information. 2. Missing Appendix A useful addition would be detailed information on the requirements of biodiversity and protected species legislation and a list of good practice guidance, where relevant to building design. Alternatively this information should be included in Appendix 4. **Response:** no change proposed
76	**CCC**	**5**	Column 3 1st paragraph is repetitive. **Response:** It is a little repetitive but is a reiteration/ amplification. No change proposed.
77	**CCC**	**5**	Column 3. **How to use this document** paragraph 1: should read This document amplified existing planning policies relating to AONBs contained in Local development Frameworks and Local Plans. **Response:** The existing wording is preferred for consistency with the Planning Guidelines. No change proposed. **NOTE TO EDITOR**: Page 6: Para 1: Change AONB Planning Guidelines (2009 consultation draft) to AONB Planning Guidelines.
78	**CCC**	**7**	Requirements of SPDs no longer applies **Response:** Accept. **NOTE TO EDITOR**: Page 7. First paragraph. Delete first sentence: 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 Local Development scheme to indicate which Development Plan Document (DPD) or saved policy it is supplementing and the timetable for its preparation and adoption. Amend second sentence to read As an SPD this document will relate to a policy within the LPA's Core strategy DPD or saved policy from a Local Plan dealing with landscape protection within the AONBB, its quality and character. Amend third sentence to read: It is an expression in more detail.....
79	**CCC**	**11**	Various changes suggested on pages 11 and 12 to reflect changes in PPS and abolition of RSS **Response:** Accepted.
80	**CCC**	**14**	There should be a map of the North Pennines showing the areas referred to.

			Response: accepted
81	**CCC**	**17**	Capital T missing from The Derwent Valley **Response:** noted
82	**CCC**	**29**	All of the text should be in a box with larger text **Response:** Accept.
83	**CCC**	**33**	1 First paragraph. Can we lose this? 2 Second paragraph – replace 'small acts of repair or even replacement' with Repair and maintenance.... 3 Delete reference to buildings in Conservation Areas **Response:** The wording of the text could be improved. **NOTE TO EDITOR**: Page 33. Delete first paragraph: "Much the greatest part....traditional buildings." Replace with: Repair and maintenance works play an essential role in looking after both the fabric and the character of traditional buildings. Although these works can seem very minor or routine they can have a substantial effect on a building's character over time. Taking care over the detail of relatively minor works – the re-pointing of stonework, the replacement of windows and doors or rainwater goods – will help conserve the character of the building for future generations. Paragraph 2, Sentence 1: Amend to read: Repair and maintenance works do not require planning permission. Sentence 2: Delete reference to Conservation Areas However in the case of listed buildings or of buildings generally in Conservation Areas it will be necessary...
84	**CCC**	**43**	Delete sentence 1and replace with 'When dealing with planning applications in the AONB...extensions and conversions...' **Response:** The wording of the text could be improved. **NOTE TO EDITOR**: Page 43. Paragraph 1: replace with: Many buildings will be altered, extended or even converted to a new use at some point during their life. If carried out sensitively this can allow old buildings to be adapted to meet changing needs while retaining their character and meaning. If done badly it can damage both the character of the building and its wider setting. When dealing with planning applications in the AONB, local planning authorities will aim to ensure that alterations and extensions reflect the quality of the original structure, surrounding buildings and setting.
85	**CCC**	**47**	Column 3, line 4 – typo – it should be either *no strong* or *little*

			Response: Accept **NOTE TO EDITOR**: Page 47: Column 3, Sentence 2: Amend to read. In fact there is little evidence of this
86	**CCC**	**48**	Delete paragraph 2 sentence 1. Replace 'Many of these' with 'the best of these'. **Response:** Accept with modifications. **NOTE TO EDITOR**: Page 48: Column 1, paragraph 2, delete first sentence "Such examples are not a very good start….AONB" Replace with: There are nevertheless a wide variety of attractive porches to be found across the AONB. The best examples often have a stone base with timber-framed windows and door. Robust versions may be built entirely of stone. More decorative porches – often dating from the late C19th – may feature elaborate timber barge boards and finials.
87	**CCC**	**50**	Change first sentence to read: the design of windows and doors can have a strong impact on the character of a building. **Response:** Accept. **NOTE TO EDITOR**: Page 50: Paragraph 1: amend 1st sentence to read: The design of windows and doors can have a strong impact on the character of a building. Add final sentence to same paragraph: This can be achieved with features that are in keeping with the character of traditional buildings.
88	**CCC**	**52**	Do we need Render and Painting sections? **Response:** Worth keeping in as it is an issue affecting new build / alterations etc as well as repair and maintenance. Mo change proposed.
89	**CCC**	**53**	Replace 'contained in lDFs' with 'and PPS4 (Planning for economic development in Rural Areas) Policy EC6 **Response:** Accept with modifications. **NOTE TO EDITOR**: Page 53. Amend 1st sentence to read: National and local planning policies are broadly supportive of new rural enterprise….. Line 4 and Line 7: change The planning authorities to Planning authorities
90	**CCC**	**65**	Delete phrase 'Whether the proposed…..affordable housing. **Response:** Accept with modifications. **NOTE TO EDITOR**: Page 65: Sentence 1: Delete phrase – Whether the proposed development is to be a new farm shed or affordable housing Amend Sentence 1 to read:

			Whatever the type of development, the key to successful…
91	**CCC**	**65**	Change para 2 to read …site analysis plan, *which can feed into a Design and Access Statement, which is required to be submitted with most planning applications.* **Response:** Accept **NOTE TO EDITOR**: Page 65: Para 2: amend to read: …site analysis plan, which can feed into a Design and Access Statement, which is required to be submitted with most planning applications.
92	**CCC**	**66**	Para 1 after villages, add ' especially those that have local services and facilities.' Delete 'that growth is used to achieve' **Response:** Accept with modifications. **NOTE TO EDITOR**: Page 66: Para 1: amend to read: There is scope for housing development in many villages, and particularly those that have local services and facilities. Planning authorities will wish to ensure that this takes the form of good quality housing which meets local need and helps conserve and enhance the AONB's environment.
93	**CCC**	**70**	Sentence 2 paragraph 1 is effectively repeated by sentence 1 paragraph 2. **Response:** no change proposed
94	**CCC**	**71**	Q use of word 'identifying' line 1. **Response:** accept
95	**CCC**	**75**	Add EA contact details **Response:** accept
96	**CCC**	**85**	Can entire section 'there is much delight…..design' go? **Response:** The wording of the text is a bit florid and should be re-worded. **NOTE TO EDITOR**: Page 85. Delete paragraph 1 *(There is much delight…..planting design)* and replace with: The way a buildings sits within the landscape is often as important as the design of the building itself. In the vernacular landscapes of the AONB, buildings are often located to take advantage of variations in slope, sunlight and shelter, to respond to the need for access and water, to allow for the supervision of a tract of land or to enjoy a beautiful view. The relationship of any new building to its surroundings needs to be handled with care, and the detailing of any associated landscaping – from the planting of trees to the selection of paving materials - should be informed by what is present in the locality.
97	**CCC**	**87**	References should be to local authority tree officers. **Response:** accept

98	**CCC**	**95**	Typo at line 14 'advising' should read 'advice' **Response:** accept
99	**CCC**	**102**	Change Trees on development sites SPG to Trees and Development SPD **Response:** accept
100	**CCC**	**117**	Change email address to lpc@carlisle .gov.uk **Response:** Accept
101	**CCC**	**118**	Update references to CCC SPD. **Response:** Accept. **NOTE TO EDITOR**: Page 118 amend Carlisle City Council entry to read: Trees and Development SPD 2009. Countryside Design SPD 2010. Designing Out Crime SPD 2009. Energy Efficiency SPD (Draft)

North Pennines AONB Planning Guidelines

NORTH PENNINES
Area of Outstanding Natural Beauty

European Geoparks

UNESCO GLOBAL GEOPARKS NETWORK

North Pennines Area of Outstanding Natural Beauty and European Geopark

This document provides guidance on development in or affecting the North Pennines Area of Outstanding Natural Beauty (AONB). It is aimed primarily at 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; the guidelines give greater expression to what are often quite broad-brush policies in local development documents.

The five planning authorities within the North Pennines (Cumbria County Council, Durham County Council, Northumberland County Council, Eden District 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.

Scope and purpose

The main objectives of the Guidelines are to:

- ensure that new development conserves and enhances the natural beauty of the North Pennines while accommodating the development needs of its communities;
- stimulate the highest standards of design, conservation and development;
- support the production and implementation of local planning policy; and
- secure a consistency of approach towards planning matters across the AONB.

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 planning guidance and policies at a national and local level, 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.

It was prepared using information from a range of background documents, including national and regional guidance and external technical documents. Much of the evidence base is taken from the North Pennines AONB Management Plan 2009-2014. The Planning Guidelines are accompanied by more detailed Building Design Guidelines (a separate document) and therefore do not deal with design in any great 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), and the statutory AONB Management Plan.

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. In all development there will be a need to consider protected species legislation and requirements. 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. Works affecting public rights of way or public highways may require consents from the highway authority which are separate from the planning system.

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.

Adopting this guidance as a Supplementary Planning Document (SPD)

As an SPD this document will relate to a policy within the LPA's Core Strategy Development Plan Document or saved policy from a Local Plan dealing with landscape protection regarding 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, before adoption, each authority has to demonstrate that they complied with the relevant procedures for the preparation of Local Development Documents. Any consultation carried out needs to be in conformity with their Statement of Community Involvement (SCI).

Adopting this guidance as Supplementary Planning Guidance (SPG)

As an alternative to adoption as an SPD, local authorities can 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 document was the subject of a full and detailed public consultation during the summer of 2010.

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 38 AONBs covering 16% of England and Wales (33 wholly in England, 4 wholly in Wales and 1 which straddles the border). The North Pennines AONB is in both the North East and the North West of England. Other AONBs in the regions are Northumberland Coast, Solway Coast, Forest of Bowland and Arnside and Silverdale. The purposes of AONB designation were reaffirmed by the Countryside and Rights of Way Act 2000 and are 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; and*
- *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."*

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.

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."

Principles for the management of Category V Protected Landscapes

As part of the family of Category V Protected Landscapes, 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

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 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 MP, 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 (which replaced PPG7), 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) set out the Government's national policies on different aspects of spatial planning. Policies in PPSs must be taken into account in the formulation of planning policies and are a material consideration in

development management decisions where relevant. They also explain the relationship between planning policies and other policies, which have an important bearing on issues of development and land use. The most relevant to development in the North Pennines AONB at the time of publication are:

PPS1: Delivering Sustainable Development (2005);

Planning Policy Statement: Planning and Climate Change – Supplement to PPS1;

PPS4: Planning for sustainable economic growth (2009);

PPS5: Planning for the Historic Environment (2010);

PPS7: Sustainable Development in Rural Areas (2004);

PPG8: Telecommunications (2001);

PPS9: Biodiversity and Geological Conservation (2005);

PPS10: Planning for Sustainable Waste Management (2005);

PPS22: Renewable Energy (2004);

PPS25: Development and Flood Risk (2010); and

MPS1: Planning and Minerals (2006).

New PPS are published from time to time which may replace existing PPG and PPS in whole or in part. Up-to-date information is available from the Government website or from local authority planning services. At the time of publication the Government were consulting on two new PPS:

Planning for a low carbon future in a changing climate supplements PPS1 by setting out how planning should contribute to mitigating climate change and adapting to its impacts. The PPS will replace the earlier supplement to PPS1 'Planning and Climate Change' and PPS22 'Renewable Energy'.

Planning for a natural and healthy environment will replace *Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9); Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation (PPG17); Planning Policy Statement 7: Sustainable Development in Rural Areas (PPS7)* – in so far as it relates to landscape protection (paragraphs 21 to 23), soil and agricultural land quality (paragraphs 28 and 29) and forestry (paragraph 33).

This guidance may be updated to reflect any changes to Government policy arising from these documents.

Local Development Frameworks

The Planning and Compulsory Purchase Act 2004 introduced a new system of development plans that abolished Structure Plans and replaced District Local Plans with Local Development Frameworks (LDF). Local planning authorities are currently engaged in the process of replacing their local plans with LDFs. 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 (other than SPDs) 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 and Waste Development Frameworks. 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 including community involvement. They amplify existing policy and 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. 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 from 1842 might equally have been written today, but it would be 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 and wind farm development have affected the landscape, change has been continuous. Today one of the main challenges for those who love and care for the North Pennines is making sure that the pace of change, and the nature of that change, don't damage the essential character of the area as, in part, the last wild place in England.

Remote and wild

Much of the North Pennines is truly remote, wild countryside and it is precisely this sense of wildness and remoteness which gives much of the area its character. There are few places in England where you can walk all day without crossing a road, but it is still possible here. In spring and summer, high heather moors and blanket bogs are alive with the evocative calls of wading birds, black grouse dance on their leks and merlin and peregrine falcon race through the air.

People and place

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. In 1861, 27,000 people lived in the North Pennines orefield, but today the population is estimated to be around 12,000 people, less than half of what it was during the lead mining heyday.

The majority of the AONB population lives in 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. This landscape became enclosed by the miner-farmers from the 16th century, 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.

Landscape pattern

In the 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.

Tyne, Tees and Wear

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. In these rivers can be found the elusive otter, the water vole (Britain's fastest declining mammal) and Atlantic salmon.

Northern rocks

The world renowned geology of the area has given rise to dramatic landform features, most famously High Force and the sweeping valley of High Cup Gill, on the Pennine Way above Dufton, and our geodiversity also includes a world famous mineral wealth. The North Pennines AONB is Britain's first UNESCO European Geopark and a founding member of the UNESCO Global Geoparks Network.

Woods and wildlife

Though not extensive, the native woods of the North Pennines are themselves important examples of woodland types. They are distinctive features of the landscape, following the course of rivers or clinging to narrow gills. The North Pennine woodlands are also one of the last places in England where you can find red squirrels.

The North Pennines has a remarkably high concentration of nationally and internationally important conservation sites and areas. 50% of the AONB is designated as Sites of Special Scientific Interest (SSSI). There are also two National Nature Reserves (NNR), five Special Areas of Conservation (SAC) under the EU Habitats Directive, and a Special Protection Area (SPA) under the EU Birds Directive. Moor House-Upper Teesdale NNR, 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.

Land and livelihood

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. Sustainable tourism is becoming an increasingly important aspect of the local economy, and the area offers a warm welcome for those who would come to see its wildlife and wild places, to uncover its history and visit its many attractions.

Explore

You can read in this publication about the many important habitats and species of the North Pennines – the blanket bog, hay meadows and the oak/ash woodlands, the Teesdale Flora, the wading birds and the black grouse. But better still you can go out and explore them for yourself. This is perfect country for walking, cycling, horse-riding, wildlife-watching and following in the footsteps of artists and writers who have been inspired by this wild land. There are many footpaths and bridleways to explore, including the Pennine Way and Pennine Bridleway National Trails, the C2C National Cycle Route, the Pennine Cycleway and the National Byway. Derwent and other reservoirs offer opportunities for sailing, fishing, canoeing and even water ski-ing. The North Pennines is also the only AONB with its own ski slopes, though the trend towards warmer winters means they are little used now.

If you want to know more about looking after the North Pennines into the future, you can read the AONB Management Plan, available at www.northpennines.org.uk

Pressures

There is considerable pressure on the North Pennines landscape. This comes in many forms, including more obvious features like wind energy development, communications masts, new housing development, increasing traffic, changes in agriculture, mineral developments and military use of the area. There is also the gradual erosion of rural character that accompanies unsympathetic management of roads, out-of-keeping conversion of traditional buildings and the gradual loss of historic features. 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. Climate change is likely to bring many new pressures to bear on the landscape, some of which are difficult to quantify at this stage.

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.

Landscape type / Pressure	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	●	●	●					●	●	●	●	●	●	●

This section gives general guidance for planners and developers on the conservation and enhancement of environmental resources – landscape character, biodiversity, 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;
- The Northumberland Landscape Character Assessment (which will supersede the Tynedale District LCA); and
- 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. The AONB Partnership is currently working on an integrated landscape character assessment and landscape guidelines for the North Pennines.

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.

Further information

Countryside Character: Volume 1: North East. naturalengland.org.uk
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.gov.uk
Northumberland Landscape Character Assessment. www.northumberland.gov.uk

Guidelines for Landscape and Visual Impact Assessment (2nd Edition 2002): Landscape Institute and Institute of Environmental Management and Assessment. ISBN 0 419 20380 X

Landscape character

LC1 Find out as much as you can about the landscape of the site and its surroundings. Refer to published landscape character assessments for information.

LC2 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.

LC3 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.

LC4 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.

LC5 Exploit the potential of topography and existing vegetation to screen or assimilate the development into the landscape.

LC6 Retain and protect mature traditional features like hedges, walls and field trees where possible (see Protecting Features on Development Sites).

LC7 Where mature features can't be retained, consider translocation or the salvage and the re-use of materials like walling stone and stone gateposts.

LC8 Where trees are likely to be affected find out if they are protected by Tree Preservation Orders or by being located within a Conservation Area.

LC9 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.

LC10 Use natural materials in construction where possible and particularly local stone and timber.

LC11 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.

LC12 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.

LC13 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.

LC14 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.

LC15 Maintain newly planted trees and hedges to a high standard to ensure that their potential is realised.

Biodiversity and 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 North Pennines Geodiversity Action Plan (see below) identifies a number of North Pennines Geodiversity Sites. These include sites identified by local authorities as Local Sites and additional candidate Local Sites. 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 species protection and survey and licence requirement for 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) contain 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); and
- Cumbria BAP (www.wildlifeincumbria.org.uk).

A list of BAP priority species and habitats in the north Pennines is given in Appendix 5

The North Pennines AONB is a UNESCO-endorsed European and Global Geopark and the AONB Partnership has produced a Geodiversity Audit and a Geodiversity Action Plan (North Pennines AONB Partnership, March 2010) which give background information on the resource and set out priorities for action.

Biodiversity and geodiversity

BG1 Find out as much as possible about the biodiversity and geodiversity of your site and its surroundings.

BG2 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.

BG3 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). Avoid adverse effects (direct or indirect) on protected species.

BG4 Undertake surveys at an appropriate time of year and over more than one season where necessary.

BG5 Avoid development in, or adversely, affecting BAP priority habitats, or affecting BAP priority species (see Appendix 5).

BG6 Avoid polluting watercourses - either from discharges or run-off from the development or during construction.

BG7 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.

BG8 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.

BG9 Retain and maintain access to important geological exposures.

BG10 Consider the timing of operations carefully: some impacts can be avoided if works are carried out at the right time of year.

BG11 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. Incorporate these into the submitted proposals.

BG12 Look for opportunities to meet the objectives of the North Pennines Geodiversity Action Plan.

BG13 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.

BG14 Plant species native to the locality (see Tree and shrub planting). Use plants of local or regional provenance where possible.

BG15 Avoid introducing invasive species either intentionally as ornamental plants or unintentionally through poor quality control on imported soils or plants (see Appendix 6).

BG16 For larger sites, talk to your local Wildlife Trust or other conservation organisation about developing a Biodiversity Action plan for your development.

BG17 Adopt careful working practices detailed in a method statement, including a code of conduct for your workforce and subcontractors, to ensure that they don't inadvertently damage habitats or disturb important species.

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 3 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.

Early pre-application discussions with the County Archaeologist are essential, as where assessment and evaluation work is required this will need to be completed at a pre-application stage, in line with the provisions made in policies HE6 and HE8 of PPS5. Planning applications will be assessed in terms of both their direct (physical) and indirect (visual) impacts on standing and below-ground archaeological remains. Planning conditions may be used to ensure that mitigation works such as excavation, watching briefs or building recording are carried out as necessary.

Cultural heritage

CH1 Find out as much as possible about the history and cultural heritage of your site and its surroundings.

CH2 Consult the County Archaeologist (see Appendix 1) at an early stage to find out what assessment and evaluation work is required.

CH3 Involve the local community or local history societies – find out what they know or value about the history of the site.

CH4 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.

CH5 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.

CH6 Preserve features of archaeological interest in situ wherever possible and protect them from site operations.

CH7 Preserve mature landscape features – walls, hedges, trees - and incorporate them into the design.

CH8 Where disturbance is unavoidable use qualified specialists to record features prior to their removal: consider salvage, re-use or relocation where appropriate.

CH9 Look out for unexpected finds and report them to the County Archaeologist.

CH10 Be respectful of the historical context of the development. Ensure that development doesn't detract from the appreciation and understanding of its wider setting.

CH11 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.

CH12 Look for opportunities to sympathetically re-use or adapt redundant historic structures to give them a use that will sustain their management in the future. Discuss your ideas early with the local authority.

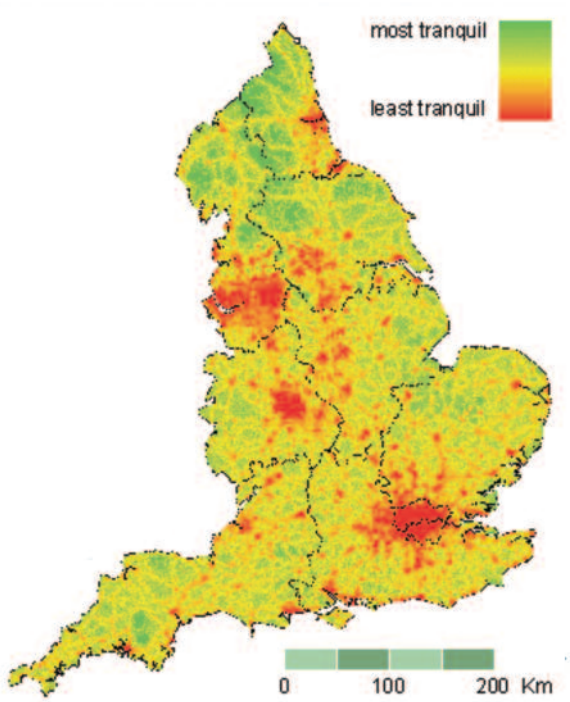
Tranquillity

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.



National tranquility map

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:

- **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; and
- **Light trespass** – the spilling of light beyond the site boundary which may make it difficult for neighbours to sleep.

Introducing lighting into unlit areas can be detrimental to nocturnal species such as bats, and disturbance-sensitive species such as otters. 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.

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 Service 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.

Light

L1 Consider whether lighting is necessary at all, and if it is, where it is needed and why.

L2 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.

L3 Adopt limits for the level of illumination appropriate to the wider setting of the development – refer to the Institution of Lighting Engineers Environmental Zones.

L4 Don't exceed the level of illumination required for any given application – refer to published standards.

L5 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.

L6 Direct light downwards rather than upwards – where up-lighting is essential use shields and baffles to reduce spillage.

L7 Chose efficient and well-designed luminaries which direct light to where it is needed and reduce spillage and glare. Install luminaries carefully to reduce glare – keep the angle of the main beam below 70°.

L8 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.

L9 Keep decorative architectural up-lighting to a minimum – consider only using it on special occasions and keep it understated.

L10 Think about views from the wider countryside and make the best use of the screening effects of topography, buildings and vegetation.

L11 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.

L12 Avoid introducing external lighting into important foraging areas for bats. Avoid wildlife corridors and particularly watercourses.

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 tranquility in the AONB and these principles should apply to all development and not just conspicuously noisy activities.

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*.

Noise

- **N1** Maintain adequate distances between noisy operations and noise sensitive areas.
- **N2** Make best use of the acoustic screening properties of the natural topography or existing buildings.
- **N3** Use the quietest machinery or quietest methods of working available. Make sure plant and machinery are well-maintained.
- **N4** Contain noise by sound-proofing buildings or using acoustic barriers.
- **N5** For unavoidably noisy activities, specify, monitor and enforce acceptable noise limits.
- **N6** Control the time when noisy operations take place.
- **N7** Use low noise technologies like low noise surfaces on new roads. Look for opportunities to slow the speed of vehicles using traffic management.

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, and Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra 2009) gives further guidance. 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.

Soil

S1 Follow the Construction Code of Practice for the Sustainable Use of Soils (see below).

S2 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.

S3 Avoid the disturbance of deep peat soils where possible. Where disturbance is unavoidable take specialist advice on their handling and care.

S4 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.

S5 When stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction.

S6 Confine traffic movement to designated routes.

S7 Keep soil storage periods as short as possible.

S8 Clearly define stockpiles of different soil materials.

S9 Where soils need to be stored, use low mounds to prevent anaerobic conditions from developing.

S10 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.

S11 Use loose tipping methods of soil replacement to reduce damage and compaction.

S12 Ensure that the entire soil profile replaced is in a condition to promote sufficient aeration, drainage and root growth.

S13 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); and
- *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.

Air

A1 Assess the potential impacts of the proposals on air quality and use it to inform the design process.

A2 Locate operations likely to create dust carefully – in sheltered positions and away from dust-sensitive areas.

A3 Maintain plant regularly to minimise exhaust emissions. Install and maintain dust suppression equipment where necessary.

A4 Suppress dust on construction tracks and haul roads through the use of water bowsers, or use hard surfacing where appropriate.

A5 Provide facilities for cleaning vehicles leaving the site to reduce dirt on roads and sheet vehicles carrying dusty loads.

A6 Keep the site green – seed bare ground and soil storage mounds with native grasses where possible.

A7 Reduce or suspend potentially dust-creating operations in windy conditions.

A8 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 principal 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.

Water

W1 Assess the potential impacts of the proposals on hydrology and water quality and use it to inform the design process.

W2 Avoid activities that will interfere with local watercourses, wetlands, blanket bog, springs and aquifers.

W3 Avoid inappropriate development in flood risk areas.

W4 Have regard to the topography of the site and use it to develop layouts that reduce run-off.

W5 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.

W6 On engineering or construction sites, minimise the amount of water entering the site using interceptor ditches where necessary.

W7 Identify opportunities for biodiversity through the creation of new permanent or seasonal wetlands.

W8 Keep an inventory of all potentially hazardous materials on site and have an action plan in place to deal with spillages.

W9 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.

W10 Use settlement lagoons, silt and oil interceptors to remove suspended solids and pollutants. Use reed beds where appropriate to condition water leaving the site.

W11 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).

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 MPS1in 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 sewage 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; and
- 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.

Minerals and waste

MW1 Avoid damage to locally important topographic features like scarps, scars, stone bands, limestone pavements, spurs, ridgelines and natural watercourses.

MW2 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.

MW3 Avoid adverse impacts (direct or indirect) on protected species.

MW4 Avoid secondary or indirect impacts on species and habitats of nature conservation value in neighbouring areas.

MW5 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.

MW6 Preserve features of archaeological value or historical interest in situ where possible and protect them from site operations.

MW7 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.

MW8 Where preservation of archaeological features by record rather than in situ has been agreed, ensure that recording is carried out to a high standard and that results are published.

MW9 Avoid pollution to watercourses and ground water and aerial pollution in the form of dust or plant emissions.

MW10 Avoid visually prominent extraction areas and orientate working faces to minimise their visibility. Avoid breaching local skylines. Minimise the area disturbed at any one time through phased working and restoration.

MW11 Construct screening and 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 and short through regular cutting or grazing.

MW12 Locate operational plant to minimise its visibility – where it is visible, choose colour carefully to minimise intrusion.

continued...

Minerals and waste *(continued)*

MW13 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.

MW14 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.

MW15 Restore the site progressively and look for opportunities to improve biodiversity, geodiversity and landscape throughout its working life.

MW16 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.

MW17 Restore the site in a manner which maximizes its biodiversity. Ensure that habitat creation proposals are deliverable and based on sound techniques.

MW18 Create new Biodiversity Action Plan priority habitats and cater for Biodiversity Action Plan priority species. Focus on those most relevant to the area.

MW19 Restore where possible through natural regeneration and particularly on bare rock and scree and low fertility substrates – avoid excessive tidiness and particularly within the less visible parts of the site.

MW20 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.

MW21 Retain important geological exposures in the restoration of the site and provide for access to them.

MW22 Provide for both a high quality of aftercare and the long-term management of habitats and features.

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 Governments 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 AONBs.

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; and
- 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 works can have adverse impacts on sensitive habitats, species 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; and
- Guyed structures can cause collision fatalities in some bird species, particularly if poorly designed or located.

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

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

Telecommunications

T1 Consider the design of the network as a whole and choose options that have the lowest overall impact.

T2 Consider using networks of smaller, lower impact, masts on enclosed low ground rather than single tall masts on open high ground.

T3 Use advances in technology or developments in the network to rationalise equipment: remove redundant, prominent or intrusive elements.

T4 Share masts unless this leads to unacceptable levels of clutter on an individual mast. Avoid bulky head frames.

T5 Share low impact sites but avoid adding to the impact of prominent sites.

T6 Avoid locations within the moorland ridges and summits, and moorland plateau.

T7 Use existing buildings and structures where possible to support or contain antennas and equipment: take care not to compromise their existing architectural character.

T8 Choose locations within settlement boundaries where possible to help assimilate the mast and reduce the impact of ancillary development; access tracks, security fencing etc.

T9 Avoid skyline locations and particularly high ridges.

T10 Choose locations where topography, buildings or vegetation form a backdrop and particularly in views from sensitive or well-used viewpoints.

T11 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 and avoid sites where sensitive bird species are present.

T12 Avoid damage to sensitive habitats or archaeological features.

T13 Avoid open locations. In open landscapes locate masts close to existing farm building clusters or tree groups.

T14 Avoid locations that impact on the setting of sensitive buildings.

T15 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).

T16 Use monopoles where possible and modern slim-line lattice towers for taller structures. Replace older structures with these where possible.

T17 Use reflectors on support wires to reduce bird strike where a specific risk has been identified.

T18 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.

T19 Where existing lighting columns are present – in urban or roadside locations - choose detailing and colour to match these.

T20 Equipment at the base of the mast should be kept to a minimum, under-grounded where possible, or screened by existing features – trees, hedges, walls or buildings.

T21 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.

T22 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.

T23 Underground services where possible and particularly in open locations. Reduce the visual clutter of existing cable services by undergrounding.

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 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 permitted ....provided that there is no significant environmental detriment to the area concerned*".

The NAAONB's 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. Conserving the relative 'wildness' and remoteness of the North Pennines landscape is fundamental to the purposes of its designation. This wildness, coupled with the openness of the landscape and high degree of intervisiblity 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. In relation to wind energy, 'small-scale' in this context means development consisting of a single turbine with a ground to hub height of 25 metres or less. This criterion is based on 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*".

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 physically damaged by the development, or by construction works or associated infrastructure, as can protected species such as wading birds;
- Turbine and track construction can damage peatland, releasing carbon and impairing future carbon storage;
- The natural quality, and biodiversity, 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 visually from the character or setting of listed buildings, conservations areas , scheduled monuments and archaeological features;
- The infrastructure required for energy projects – tracks, service areas, substations, fences, overhead cables and service poles – can add visual clutter to the landscape and detract from its rural character, as well as having an effect on biodiversity and archaeological features;
- Increased traffic associated with biomass may affect the character, condition or recreational value of rural roads and affect air quality;
- 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; and
- Onsite renewables may assist in the re-use and renovation of redundant buildings, particularly those that are off-grid.

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

Renewable energy

Small-scale wind energy development

RE1 Avoid locating turbines within the moorland ridges and summits, and moorland plateau landscapes generally.

RE2 Avoid elevated sites where there are acceptable alternatives on lower ground.

RE3 Avoid locating the turbine on prominent or locally significant landforms like ridgelines, hill tops and knolls.

RE4 Avoid open locations for wind turbines. In open landscapes associate them visually with existing features – farm buildings or tree groups – while maintaining adequate stand-off distances for bats where necessary.

RE5 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.

RE6 Underground services where possible.

RE7 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.

RE8 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.

RE9 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.

RE10 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 that twin bladed models.

RE11 Avoid physical damage to sensitive habitats or archaeological features.

RE12 Avoid locations for turbines that may pose a threat to bats or birds: take specialist advice.

RE13 Avoid locations that impact on the setting of sensitive buildings and conservation areas.

RE14 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).

RE15 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.

RE16 Use non-reflective surface treatments.

RE17 Accommodate any ancillary plant in existing buildings where possible. Design any new buildings to look like traditional farm buildings.

Renewable energy

Small-scale hydro-electric development

RE17 Consult the Environment Agency, Natural England and the County Archaeologist at a very early stage in the process.

RE18 Follow the Environment Agency Good Practice Guidelines.

RE19 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.

RE20 Use existing buildings where possible for the turbine house.

RE21 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.

RE22 Avoid sites that require significant modification to natural watercourses, or to natural gill or river bank topography.

RE23 Avoid hillside sites like steep gills in open country.

RE24 Avoid sites that would entail damage to sensitive habitats or archaeological features.

RE25 Avoid sites or designs that would entail significant alterations to in-stream flow regimes, or reduce biological connectivity and particularly the passage of fish and invertebrates.

RE26 Keep the footprint of engineering operations as small as possible. Restore any areas disturbed using native grasses and native trees and shrubs where appropriate.

RE27 Design intakes and tailraces sensitively to minimize their physical and visual impacts: use natural materials in their construction where possible.

RE28 Observe bio-security precautions to avoid any invasive species being introduced on plant or machinery.

RE29 Time operations carefully to avoid impacts on sensitive species such as spawning fish and nesting birds.

RE30 Bury pipelines taking care to avoid damage to important vegetation, protected species and archaeological features. Restore the route as quickly as possible using existing soil resources.

RE31 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.

RE32 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.

RE33 Underground services where possible. Keep connections to the grid as short as possible using or sharing existing service lines where possible.

Renewable energy

Small to medium scale biomass development

RE34 Small-scale biomass installations should utilize existing buildings where possible. For new buildings or structures see the Building Design Guide.

RE35 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.

RE36 Choose locations that are within the fabric of settlements or on existing industrial or mineral sites.

RE37 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.

RE38 Avoid locations where the chimney will be prominent and particularly where it will breach local skylines.

RE39 Use colour to break up the mass of the building and the impact of the chimney: see the Building Design Guide for advice.

RE40 Storage and service areas can be visually intrusive. Chose locations that are well screened from public vantage points. Consider undergrounding or partial undergrounding of storage pits.

RE41 Follow the guidelines on noise, light, air and water in the Environmental Resources section.

RE42 Underground services where possible. Keep connections to the grid as short as possible using or sharing existing service lines where possible.

RE43 Manage traffic flows to the site to reduce impacts on local roads.

RE44 Ensure that feedstocks are from sustainable sources. Look for opportunities to use or develop local wood fuel sources which also deliver biodiversity benefits.

Further information

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

The NAAONB's position statement on renewable energy can be found on the NAAONB 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

Further information on wind turbines and bats can be found in Natural England Technical Information Notes TIN051 and TIN059, both available from the Natural England website: www.naturalengland.org.uk

Further advice on hydro power schemes can be found on the Environment Agency website – www.environmentagency.gov.uk - including Good Practice Guidelines on assessing environmental impacts.

Access roads and tracks

This guidance deals only with private access roads and tracks and not with public highways. Guidance on public highways can be found in the North Pennines AONB publication Guidance for the Management and Maintenance of Roads.

Access roads and tracks can have a substantial impact on the landscape of the AONB despite the often relatively small footprint of individual features. Moorland shooting tracks, access tracks to isolated properties, tracks associated with forestry or with telecommunications installations can be visually intrusive, and can damage features of biodiversity, geodiversity or cultural heritage value.

The construction of some tracks, and some works to existing tracks, are 'permitted development' under the Town and Country Planning (General Permitted Development) Order 1995. It should be noted that the creation of new made-up tracks across moorland to reach shooting butts is not for agricultural purposes. Local Planning Authorities should always ensure that landowners seek planning permission

Part 6 of the GDPO allows for the formation or alteration of private ways on agricultural land where this is reasonably necessary for the purposes of agriculture. In these circumstances the developer must apply to the LPA for a determination as to whether prior approval is required of the siting and means of construction of the road or track. The definition of 'agriculture' is not inclusive of sporting activities such as shooting. Where more than one function is proposed the LPA must determine whether the works are 'reasonably necessary' for agricultural purposes. In agreeing matters relating to siting and construction the LPA should treat these in the same way as the approval of the reserved matters of an outline planning permission, and must have regard to landscape, historic environment and nature conservation issues.

Part 7 allows for the formation, alteration or maintenance of private ways for the purposes of forestry, including afforestation, but without the requirement for prior approval. Most woodland

planting and management is grant aided through the England Woodland Grant Scheme administered by the Forestry Commission who will consult LPAs on schemes with potentially significant impacts. Part 9 allows for maintenance or improvement of an un-adopted street or private way but only within its existing boundaries.

Other tracks generally require consent from the planning authority and therefore require a planning application. Local planning authorities will be able to provide advice relating to specific proposals. Borrow pits for the construction and maintenance of tracks required for forestry or agricultural operations have permitted development rights where they lie within the unit and are used for the purposes set out in Part 6 and 7. Other borrow pits will require planning permission.

Development plans and LDFs rarely contain specific policies on tracks. Planning applications will generally be assessed against policies on the conservation and enhancement of environmental resources including biodiversity, geodiversity, landscape and cultural heritage. In determining such applications LPAs must have regard to the requirement in PPS7 (21) that the conservation of the natural beauty of the landscape and countryside should be given great weight in development control decisions in the AONB.

Existing measures provide additional protection for nationally and internationally important nature conservation sites. Natura 2000 sites (Special Protection Areas and Special Areas of Conservation) are subject to protection under the Conservation of Habitats and Species Regulations 2010 to ensure compliance with the requirements of the Habitats Directive. If an operation which otherwise benefits from permitted development rights is likely to have a significant effect on a Natura 2000 site, and is not directly connected with agreed management arrangements, the person proposing the operation must apply to the planning authority for approval. In effect, permitted development rights are suspended. The regulations also provide that the opinion of Natural England should be sought as to whether development is likely to have a significant effect and that their opinion will be conclusive.

Following receipt of an application for written approval, the planning authority will undertake an assessment of the implications of the proposal for the site in view of that site's conservation objectives (an 'appropriate assessment'). In making the assessment the planning authority must consult Natural England and take into account any advice received. The planning authority will approve the operation only if the assessment shows that the operation will not adversely affect the integrity of the site.

For Sites of Special Scientific Interests a list of operations requiring consent forms part of the notification. If a land manager wishes to carry out any of the listed operations they must obtain consent from Natural England. If a public body proposes to carry out an operation likely to damage the protected natural features of an SSSI they must consult Natural England, whether or not the operation is listed as an operation requiring assent. This requirement on public bodies includes proposals outwith the boundary of an SSSI but which are likely to damage the protected natural features of an SSSI. In effect, permitted development rights are removed, as with Natura 2000 sites.

Where a track which affects an SSSI is granted planning permission, then consent from NE is not required for that track. Many nationally and internationally important geodiversity sites are protected by SSSI status, though some are not. Earth heritage SSSIs are subject to the same controls as those listed above in relation to sites designated for their biodiversity interest.

Track construction may also affect species that are protected under domestic or international legislation (the Wildlife and Countryside Act 1981, as amended, the EU Habitats Directive, the Conservation Regulations, the EU Wild Birds Directive and the Protection of Badgers Act 1992) independent of planning legislation. Development can also have impacts on Scheduled Ancient Monuments which have statutory protection. Consents and licences may be required in addition to planning consent, although impacts on such features will also be a material planning consideration.

Impacts

The construction, upgrading or repair of access roads and tracks can have a range of impacts on the environment of the AONB:

- Tracks can be conspicuously artificial elements in moorland landscapes that are otherwise generally lacking in man-made features. This can erode the sense of 'wildness' 'remoteness' and 'naturalness' which are fundamental to the purposes of the AONB designation;
- Tracks and associated cuttings, embankments and borrow-pits can damage natural topography and features of geodiversity interest;
- Tracks can be highly visible linear features in open landscapes that otherwise lack focal points, or contrast in colour and form with their surroundings, detracting from the character and appearance of the wider landscape;
- Sensitive and important habitats can be lost or damaged either directly though the physical impacts of construction or indirectly through changes to their hydrology or bio-chemistry;
- Sensitive and important species can be disturbed directly, or can be affected by habitat changes or increased disturbance by vehicular or pedestrian traffic;
- Deep peats can be severely damaged by vehicle tracking, the construction of the track itself and hydrological changes which can lead to erosion;
- Water quality can be affected by run-off from tracks or the erosion of peat;
- Features of cultural heritage value, including buried archaeology, can be physically damaged by the construction of tracks and borrow pits. The setting of important features – ancient monuments and listed buildings – can be impaired; and
- The provision of tracks can facilitate access by walkers on access land to remote locations. This can be a positive benefit in some respects but can increase disturbance to sensitive species or habitats.

The impact of access roads and tracks can be reduced by careful siting and design. Detailed guidance on upland tracks has been produced by Scottish Natural Heritage (SNH): Constructed Tracks in the Scottish Uplands (SNH 2006) which is too comprehensive to be repeated here but is highly recommended.

Further Information

Constructed Tracks in the Scottish Uplands (SNH 2006) is available from the SNH website: www.snh.org.uk

Access roads and tracks

AR1 Avoid the construction of new tracks in moorland landscapes wherever possible and particularly in areas currently free from surfaced tracks.

AR2 Consult with your LPA, Natural England and the AONB Partnership team at an early stage.

AR3 Assess the environmental sensitivities of the site thoroughly: seek the advice of ecology, landscape, geodiversity and heritage specialists.

AR4 Assess the need for any new track, or significant upgrading of an existing track, rigorously.

AR5 Consider alternative means of access, or the use of smaller or lower-impact vehicles.

AR6 Consider alternative routes involving shorter tracks, track sharing, or lower impact solutions.

AR7 Consider alternatives that involve the removal, restoration or reduction in scale of existing higher impact tracks.

AR8 Identify routes and borrow pit locations that avoid direct or indirect impacts on sensitive habitats or species.

AR9 Avoid routes that cross deep peats, mires and flushes.

AR10 Identify routes and borrow pit locations that avoid impacts on features important to geodiversity.

AR11 Carry out a detailed topographical survey of the preferred route corridor.

AR12 Identify routes that minimise impacts on topography, avoiding damage to locally important features and minimising the need for conspicuous cuttings, embankments and deep culverts.

AR13 Identify alignments that fit the character of the landscape. Avoid straight lines in unenclosed landscapes. Exploit the potential of the landform or existing woodlands, hedges and walls to screen the track in important views.

AR14 Choose specifications and construction methods with the lowest environmental impact.

AR15 Minimise the impacts of the track on the natural hydrology of the site and design drainage systems to accommodate future climatic changes.

AR16 Conserve and translocate existing vegetation where possible. Restore disturbed areas using natural regeneration or the use of native species of local provenance.

AR17 Consider the potential recreational use of the track carefully including positive and negative attributes. Consider links to existing rights of way where appropriate.

AR18 Refer to SNH guidance for detailed design advice.

Agriculture and farm diversification

The appearance and character of the North Pennines landscape owes much to the way it has been managed by successive generations of farmers. The future of our farmed landscapes is likely to be influenced by the growing economic pressures coming from the liberalisation of global markets and increased global demand for both food and bio-fuels, balanced by an increasing emphasis on support for agri-environmental schemes and diversification of the rural economy. It is also likely to be affected in the medium to long term by climate change, which may bring changing patterns of cultivation and new crops. Farm businesses need to respond to these forces which can at times require new development in the countryside. It is important that such development conserves the special qualities of the AONB landscape.

The Town and Country Planning (General Permitted Development) Order 1995 as amended, grants planning permission for a wide range of development associated with agricultural uses of land, on units of 5 hectares or more. In some cases this permission cannot be exercised unless written notification is given to the Local Planning Authority, who will decide whether or not further details must be submitted for prior approval. In agreeing such matters as siting and construction of buildings the LPA will treat these in the same way as the approval of the reserved matters of an outline planning permission, and must have regard to landscape, historic environment and nature conservation issues.

Diversification of the rural economy is critical to the future of rural communities in the AONB but brings its own challenges in terms of the scale and types of development appropriate to its landscapes. Some diversification proposals will have an essentially agricultural function, particularly those associated with alternative crops or livestock. Others may include enterprises either directly related or unrelated to agriculture (see also Tourism and Recreation below) and involving a change of use of land or buildings which will generally require planning permission and which will be determined against policies in the LDF. In determining such applications LPAs must

have regard to the requirement in PPS7 (21) that the conservation of the natural beauty of the landscape and countryside should be given great weight in development control decisions in the AONB.

PPS4: Planning for Sustainable Economic Growth sets out Government Policy for economic development. With regard to rural areas Policy EC6 states that the countryside should be protected for a range of reasons, and that economic development in the open countryside should be strictly controlled. However, Local Planning Authorities are encouraged to support diversification for business purposes that are consistent in their scale and environmental impact with their rural location.

Impacts

Agricultural development and farm diversification proposals can have a range of impacts on the environment of the AONB:

- New buildings may be out of scale or out of character with their surroundings;
- Insensitive conversions of existing buildings can damage their architectural character and historic significance;
- Ancillary buildings and structures can create visual clutter that detracts from the setting and character of the farmstead;
- Mature landscape features – hedges, walls, trees – can be lost;
- Important wildlife habitats can be damaged directly or indirectly and protected species can be disturbed;
- Historic features, including archaeological remains, can be damaged or lost;
- The management of associated farmland may change to more intensive uses (pony paddocks) or extensive uses (ranching) leading to impacts on character and biodiversity;
- Farmland may pass into the control of new owners/managers who lack the knowledge and expertise of farmers;
- The rural character of the landscape can be eroded by the presence of signage and other 'urban' features;
- The tranquillity of the countryside can be weakened by noisy activities, light pollution or increased levels of traffic on local roads;
- New uses can be found for old buildings, prolonging their useful life and retaining their character;
- Development may secure resources for management or repair of traditional agricultural features like walls and hedges; and
- New wildlife habitats can be created, or the management of existing habitats improved.

Many of the potential impacts of new agricultural development or farm diversification proposals arise from new buildings and building conversions. Detailed guidance is contained in the North Pennines AONB Building Design Guide. Additional guidelines are given below.

Agriculture and farm diversification

FD1 Retain the greater part of the farmland and buildings in agricultural use.

FD2 Conserve the agricultural character of the farmstead and its immediate setting by siting new ancillary buildings and structures carefully, avoiding prominent locations in important public views.

FD3 Use the vernacular language of existing buildings as a guide to design.

FD4 Conserve traditional landscape features – walls, hedges and mature trees – and protect them throughout the development phase.

FD5 Use the low-key design language of existing boundaries, openings and surface treatments: avoid the 'suburbanising' effect of elaborate fences, gateways, signage etc.

FD6 Look for opportunities to restore or renovate existing features like hedges and walls around the steading.

FD7 For any novel elements exploit the screening value of existing topography buildings or vegetation where possible. Augment this with the planting of new native hedges and trees.

FD8 Be aware of the potential presence of protected species such as barn owls and bats, and understand the procedures required.

FD9 Consider how changes in land management may affect character or biodiversity and mitigate potential impacts where possible.

FD10 Identify opportunities to provide alternative nesting sites for birds that may be affected by renovations or demolitions and include them within submitted proposals.

Tourism and leisure

Tourism is an increasingly important part of the economy of the AONB. The character and quality of its environment is fundamental to its attractiveness to visitors. Environmentally sustainable tourism can encourage the appreciation of the landscape, wildlife, culture and history of the AONB while providing new opportunities for diversification and employment. The most sustainable developments will be those that bolster local distinctiveness, help to showcase local products, crafts and traditions and contribute to the conservation of local character and enhancement of natural beauty. While new tourist accommodation and leisure development can improve the tourism offer, it is essential that they don't detract from the very qualities that make the countryside attractive to visitors and residents.

Tourism and leisure development is in its very nature diverse and encompasses a range of development types including visitor centres, major attractions, accommodation (catered and self-catering), chalets and caravan sites, equestrian development, cafés, restaurants and car parks. Most of these will involve a change of use of land or buildings which will generally require planning permission and which will be determined against policies in the LDF. In determining such applications Local Planning Authorities must have regard to the requirements in PPS4 (EC7) that they should support sustainable rural tourism and leisure developments that benefit rural businesses, communities and visitors, and PPS7 (21) that the conservation of the natural beauty of the landscape and countryside should be given great weight in development control decisions in the AONB.

Impacts

New recreational or tourist development and associated activities can affect the environment in a number of ways:

- Development may have an 'urbanising' effect on the rural landscape through the introduction of new buildings and land uses;
- The tranquillity of the countryside may be affected by noisy activities, increased traffic levels and lighting, as well as by increased visitor numbers;
- Mature landscapes and landscape features may be damaged or lost;
- Land may be managed without the expertise or resources of farmers and foresters;
- The conversion of traditional buildings and the scale or design of new buildings may be out of keeping with the vernacular character of the locality;
- Pressures of visitor numbers can lead to damage to footpaths and fragile habitats, or disturbance to sensitive species;
- Recreational developments may bring opportunities to re-use and maintain traditional buildings, or to support traditional forms of land management; and
- The conversion of buildings can lead to disturbance of protected species such as barn owls and bats.

Many of the potential impacts of new tourism and recreational development arise from new buildings and building conversions. Detailed guidance is contained in the North Pennines AONB Building Design Guide. Additional guidelines are given below.

Tourism and leisure

TL1 Consider re-using existing buildings where this is appropriate and can be done sensitively.

TL2 Ensure that sites for chalets and caravans have substantial and effective existing year-round screening from public viewpoints in the form of topography or mature woodland.

TL3 Avoid intensive activities or high levels of pedestrian access in sensitive habitats like native woodland, species rich grassland, wetland or moorland.

TL4 Ensure that visitor facilities are located so as not to increase traffic levels substantially on quiet roads and lanes.

TL5 Avoid locating noisy activities in the AONB generally. Reduce and manage noise levels where this is unavoidable (see Tranquillity).

TL6 Avoid excessive lighting. Where lighting is required for evening activities design and manage it carefully (see Tranquillity: Light).

TL7 Look for opportunities to restore or renovate existing features like hedges and walls, and opportunities to create new wildlife habitats.

TL8 Locate facilities likely to attract significant visitor numbers where they can be accessed by public transport or sustainable modes of transport like walking and cycling.

TL9 Assess the potential impacts of increased recreational activity on fragile habitats and sensitive species. Identify appropriate visitor management measures to minimise impacts.

TL10 Use the low-key design language of existing boundaries, openings and surface treatments: avoid the 'suburbanising' effect of elaborate fences, gateways, signage etc.

TL11 In equestrian development use existing buildings for stabling where possible. Keep field shelters simple in form, locate close to existing features such as hedges walls and woodlands and away from skylines.

TL12 Locate outdoor equestrian exercising areas carefully to avoid significant earthworks. Use traditional boundary treatments – walls and native hedges – where possible instead of ranch fencing.

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 polices 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 affects 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 - 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.

For development requiring an EIA outside of the AONB a Landscape and Visual Impact Assessment would be carried out in accordance with Guidelines for Landscape and Visual Impact Assessment produced by the Landscape Institute and the Institute of Environmental Management and Assessment. It would be normally expected that in assigning sensitivity values to the landscape as part of that process that all of the landscapes of the AONB would be treated as being of the highest level of sensitivity.

There are circumstances where proximity to the AONB may trigger the need for an EIA for development which in another location might not require one. A key consideration will be whether the development could give rise to significant impacts on the AONB. This is something that needs to be assessed on a case-by-case basis.

Development outside of the AONB

DO1 Avoid locations for development that would have significant impacts on views within the AONB, and important views from or of the AONB.

DO2 Assess the landscape and visual impacts of development on the AONB thoroughly.

DO3 For wind development assess impacts from important and representative viewpoints in the AONB up to the limits of visibility– typically around 25 to 30 km.

DO4 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.

Mitigation and enhancement

Most development, however well located and designed, has adverse impacts on the environment in some degree. Much of the guidance in this document deals with how those impacts can be mitigated to bring them to more acceptable levels.

The key to successful mitigation is to:

- **identify** all potential impacts both direct and indirect;
- **avoid** harmful impacts where possible;
- **reduce** the level of impact where avoidance isn't possible; and
- **compensate** for any residual impacts.

All of these stages are necessary if the development is to have no 'net harm' on the environment. It is often the case that development is permitted where its residual impacts are considered to be sufficiently small not to warrant refusal, or to be outweighed by the benefits of the development in other respects. One consequence of this is that the overall effect of development 'in the round' is a piecemeal erosion and progressive decline of environmental quality.

Residual impacts can often be removed by creative approaches to mitigation. For example the loss of some field boundaries within a development may be unavoidable however carefully it is designed, but can be compensated for by the creation or renovation of boundaries elsewhere on the site, or outside of the site. The net effect of the development on that particular resource can be neutral or benign.

Even in situations where there are no opportunities within the site, and the developer has no control over adjacent land, it may be possible to make a financial contribution through a Planning Obligation to the work of another agency which is in a position to deliver mitigation of that kind in the vicinity of the site, or in the wider landscape, to ensure no net harm to the

resource. In the North Pennines AONB there are a large number of agencies working to improve the environment through a diverse range of projects. Working in partnership with these agencies can provide new opportunities to mitigate a development's impacts.

Compensation or 'off-setting' can also be used in relation to carbon. The peatlands of the North Pennines are a strategically important carbon sink. Many are in poor condition due largely to moorland drainage or 'gripping which compromises their ability to store carbon. The residual 'carbon footprint' of a development can be offset by contributing resources to moorland restoration in the form of grip-blocking.

In seeking to compensate for impacts in this way it is important to compensate 'like for like' where possible and to understand the true value of the assets being lost and compensate accordingly. It remains essential that important assets are protected and not 'traded' for lower value features. In some cases it may be impossible to compensate 'like for like'. A development may have residual impacts on landscape character that can't be mitigated in any practical way, at the same time as having greater potential to enhance biodiversity. If care is taken in every development to minimise adverse impacts and maximise environmental benefits the overall balance of impacts of development 'in the round' on the environment of the AONB can be more positive.

It is essential therefore for all developers to not only mitigate adverse impacts, but to look for opportunities to enhance the environment wherever they can. It is also a requirement of the NERC ACT and PPS9 that local authorities seek opportunities to improve and enhance biodiversity. Development does not have to be a threat to the environment of the AONB. If truly sustainable, development can be a mechanism for delivering an improved and healthier environment for us all. The AONB Management Plan, Geodiversity Action Plan, Biodiversity Action Plans, River Basin Management Plans and local landscape and countryside strategies and access plans contain a wide range of objectives for the environment of the AONB. These can be a useful source of information on environmental priorities to which your development can contribute.

Mitigation and enhancement proposals are often built in to the design of the proposals, others may involve works covered by Planning Conditions or by Section 106 Planning Obligations or other legal agreements. Legal agreements under Section 39 of the Wildlife and Countryside Act can be of use in dealing with longer-term land management proposals that may benefit from the support of agri-environment schemes in the future. Eligibility for such schemes can be precluded if the works are required by a planning permission, as they would be under a Section 106 agreement.

Some LPAs within the AONB are producing SPDs on Planning Obligations which will set out the authority's approach and give guidance on their use. Speak to your Local Planning Officer about what the best mechanisms are for dealing with mitigation works.

Mitigation and enhancement

ME1 Follow the guidelines in this document to identify, avoid, reduce and compensate for the impacts of the development.

ME2 Take ownership of your impacts. Ensure you have 'no net harm' on the environment and aspire to enhance it.

ME3 Be creative in looking for opportunities to mitigate impacts. Think 'outside of the box' of the site and the limitations it imposes.

ME4 Consider working in partnership with others where this could best achieve your goals.

ME5 Always look for opportunities to enhance the environment. Use the AONB Management Plan and other environmental plans and strategies to identify priorities.

Protecting features on development sites

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.

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 advice of your Local Planning Officer.

Mature trees and shrubs that are to be retained as part of the development will need to 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 complimentary habitat like rough grassland. Always take advice on the existing biodiversity or archaeological value of potential planting sites, including the potential to cause adverse effects on adjacent land, and avoid planting in sensitive locations.

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 –

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.

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.

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. Consideration should be given to biodiversity priorities in the area: for example planting berry-bearing species as a seasonal food source for Black Grouse.

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 are 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:

- 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

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

also be kept away from gutters and drains; and

- 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 conifer varieties 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 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.

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

Fences, Gates and Barriers

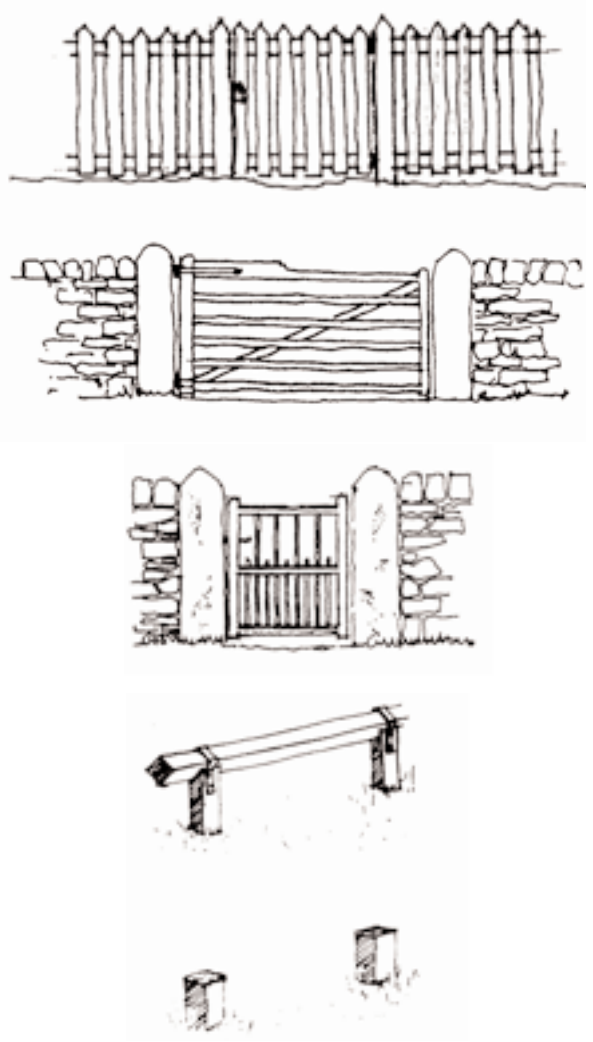
Fences are much cheaper to erect than stone walls or hedges. They do not achieve the same visual effect, and are not as durable, but may be particularly appropriate in some situations. Visually light fencing like high tensile wire may be preferred in situations where it is undesirable to draw attention 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. In some sensitive locations wire fences may need to be marked to reduce the incidence of bird strike, particularly for black grouse and waders. The least visually intrusive method is to use reflective metal plates between the top wires, one between each post.

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.

Where new fences or gates would affect a public highway or public right of way the Highway Authority (the County Council or unitary authority) should be contacted for advice. Public highways and rights of way are subject to regulatory systems that are independent of the planning system.

Further Information

Further information on landscape detailing — plot edges, trims, borders, paving, wearing surfaces and drainage details — can be found in the Building Design Guide.

The County Durham Hedgerow Partnership publishes guidance documents on hedge planting, renovation and management. These can be downloaded from the Durham County Council website: www.durham.gov.uk

Durham County Council publishes landscape guidelines on a range of subjects including: Trees; Hedges; Woodlands and Forestry; and Grasslands. These can be downloaded from the Durham County Council website: www.durham.gov.uk

Guidance on marking fences to avoid bird strike can be found on the Black Grouse Recovery Project website: www.blackgrouse.info

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 which form the development plan for a local authority area are subject to independent examination. 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.

Micro-generation
Very small-scale power generation schemes, typically providing energy to a single household/office.

Planning Policy Guidance (PPG)
Government guidance on national planning policy (being superseded by National Policy Statements and 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.

Saved Policy
Many existing District Local Plan policies have been saved and are 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 Documents (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)
Provides supplementary guidance in respect of the policies in Local Plans. These 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: Useful 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
Email: help@durham.gov.uk
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 / Historic Environment

English Heritage Northwest: 3rd floor, Canada House, 3 Chepstow Street, Manchester, M1 5FW
Tel: 0161 242 1400 email: northwest@english-heritage.org.uk

English Heritage Northeast: Bessie Surtees House, 41 - 44 Sandhill, Newcastle upon Tyne, NE1 3JF
Tel: 0191 269 1200 email: northeast@english-heritage.org.uk

Durham County Council: Archaeology Section, Regeneration and Economic Development, Durham County Council, The Rivergreen Centre, Aykley Heads, Durham, County Durham, DH1 5TS Tel: 0191 370 8712 email: archaeology@durham.gov.uk

Northumberland County Council: Archaeology Service, County Hall, Morpeth, Northumberland, NE61 2EF Tel: 0845 600 6400 email: conservation@northumberland.gov.uk

Cumbria County Council: Historic Environment Service, Cumbria County Council, County Offices, Kendal, Cumbria, LA9 4RQ Tel 01539 713066 email: mark.brennand@cumbriacc.gov.uk

North Pennines AONB Partnership: Weardale Business Centre, the Old Co-Op Building, 1 Martin Street, Stanhope, County Durham, DL13 2UY Tel: 01388 528801
email: info@northpenninesaonb.org.uk

Biodiversity and Geodiversity

Natural England North East, The Quadrant, Newburn Riverside, Newcastle upon Tyne, NE15 8NZ
Tel: 0300 060 2219 email: northeast@naturalengland.org.uk

Natural England North West, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL Tel: 0300 060 2122 email: northwest@naturalengland.org.uk

Durham County Council: Natural Environment, Regeneration and Economic Development,

Durham County Council, County Hall, Durham, DH1 5UQ Tel: 0191 3834085
email terry.coult@durham.gov.uk

Northumberland County Council: Ecology, County Hall, Morpeth, Northumberland. NE61 2EF
Tel: 0845 600 6400 email: conservation@northumberland.gov.uk

Cumbria County Council: County Ecologist, Cumbria County Council, County Offices, Kendal, Cumbria, LA9 4RQ Tel: 01539 713444 email: judy.palmer@cumbriacc.gov.uk

North Pennines AONB Partnership: Weardale Business Centre, the Old Co-Op Building, 1 Martin Street, Stanhope, County Durham. DL13 2UY Tel: 01388 528801
email: info@northpenninesaonb.org.uk www.northpennines.org.uk

Durham BAP Partnership: www.durhambiodiversity.org.uk

Northumberland BAP Partnership: www.northumberlandbiodiversity.org.uk

Cumbria BAP Partnership: www.wildlifeincumbria.org

Landscape

Cumbria County Council: Landscape, Cumbria County Council, County Offices, Kendal, Cumbria, LA9 4RQ Tel: 01539 713444 email: jenny.wain@cumbriacc.gov.uk

Durham County Council: Natural Environment, Regeneration and Economic Development, Durham County Council, County Hall, Durham, DH1 5UQ Tel: 0191 3834365
email:landscape@durham.gov.uk

Northumberland County Council: County Hall, Morpeth, Northumberland, NE61 2EF
Tel: 0845 600 6400

North Pennines AONB Partnership: Weardale Business Centre, the Old Co-Op Building, 1 Martin Street, Stanhope, County Durham. DL13 2UY Tel: 01388 528801
email: info@northpenninesaonb.org.uk

Natural England North East, the Quadrant, Newburn riverside, Newcastle upon Tyne, NE15 8NZ
Tel: 0300 060 2219 email: northeast@naturalengland.org.uk

Natural England North West, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL Tel: 0300 060 2122 email: northwest@naturalengland.org.uk

Environment

Environment Agency www.environment-agency.gov.uk

Access

Cumbria County Council: Rights of Way, Cumbria County Council, The Courts, Carlisle, Cumbria, CA3 8NA Tel: 01288 226558 email: david.gibson@cumbriacc.gov.uk

Durham County Council: Access and Rights of Way, Regeneration and Economic Development, Durham County Council, County Hall, Durham, DH1 5UQ Tel: 0191 383 3239
email:prow@durham.gov.uk

Northumberland County Council: County Hall, Morpeth, Northumberland, NE61 2EF
Tel:0845 600 6400 email: DBrooks@northumberland.gov.uk

Appendix 2: 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.

Cumbria County Council

Cumbria Landscape Character SPD Cumbria Wind Energy SPD (2008)

Durham County Council

Sustainable Design SPD

Carlisle City Council

Trees and Development SPD 2009. Countryside Design SPD 2010. Designing Out Crime SPD 2009. 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 and 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; and
- 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 4: 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

To get permission to remove a countryside hedgerow, you must write to your LPA. 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.

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 5: BAP priority habitats and species

Priority Habitats in the North Pennines

Ancient semi natural woodland
Other Broadleaved Woodland
Native Hedgerows
Parkland
Scrub
Veteran trees
Wet Woodland
Wood Pasture
Exposed Riverine Sediments
Ponds
Rivers & Streams
Blanket Bog and Upland wet Heath
Calaminarian Grassland
Species-rich upland acid grassland
Upland calcareous grassland
Upland Dry Heath
Upland hay Meadows
Upland Scree & Rock Habitats
Early succesional Brownfield land
Road verges of conservation importance
Waxcap grasslands

BAP Priority Species in the North Pennines

Badger
Bats
Brown Hare
Hedgehog
Otter
Red Squirrel
Water Vole
Barn owl
Black Grouse
Curlew
Hen harrier
House Sparrow
Lapwing
Linnet
Merlin
Nightjar
Redshank
Reed Bunting
Ring Ouzel
Skylark
Snipe
Song thrush
Spotted Fly-catcher
Starling
Tree Sparrow
Adder
Common Lizard
Slow Worm
Eel
Salmon
Trout
Dark green fritillary
Dingy Skipper
Glow Worm
Grayling
Green Hairstreak
Northern Dart (moth)
Round-mouthed Whorl Snail -vertigo genesii
White-clawed Crayfish
Juniper
Ladies Mantles
Pale Bristle Moss
Yellow Marsh Saxifrage

** Note: terminology for habitats may vary between local BAPs*

Appendix 6: 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 (*Hyacanthoides 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*); and
- 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

Produced by the The North Pennines AONB Partnership, 2010.

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The North Pennines AONB Partnership holds a Gold GTBS Award for its corporate office and tourism activities.

Produced by the North Pennines AONB Partnership

NORTH PENNINES AONB PARTNERSHIP

Working together for the North Pennines

with the support of:

North Pennines AONB Building Design Guide

NORTH PENNINES

Area of Outstanding Natural Beauty

European Geoparks

GLOBAL GEOPARKS NETWORK

North Pennines Area of Outstanding Natural Beauty and European Geopark

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 document is to provide further building design and conservation guidelines to planners, 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.

This document has been 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. This document underwent a comprehensive process of consultation with Local Planning Authorities, statutory consultations, a range of relevant agencies, Parish Councils and the wider public.

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.

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.

Adopting this guidance as a Supplementary Planning Document (SPD)

As an SPD this document will relate to a policy within the LPA's Core strategy DPD or saved policy from a Local Plan dealing with landscape protection within the AONB, its quality and character. It is 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.

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 both the North East and the 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 2001 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; and*
- *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

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

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;and
- 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 and buildings.

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)

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 MP, 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 (which replaced PPG7), 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) set out the Government's national policies on different aspects of spatial planning. Policies in PPS must be taken into account in the formulation of planning policies and are a material consideration in development management decisions where relevant. They also explain the relationship between planning policies and other policies, which have an important bearing on issues of development and land use. The most relevant to development in the North Pennines AONB at the time of publication are:

- PPS1: Delivering Sustainable Development (2005);
- Planning Policy Statement: Planning and Climate Change – Supplement to PPS1;
- PPS4: Planning for sustainable economic growth (2009);
- PPS5: Planning for the Historic Environment (2010);
- PPS7: Sustainable Development in Rural Areas (2004);
- PPG8: Telecommunications (2001);
- PPS9: Biodiversity and Geological Conservation (2005);
- PPS10: Planning for Sustainable Waste Management (2005);
- PPS22: Renewable Energy (2004);
- PPS25: Development and Flood Risk (2010); and
- MPS1: Planning and Minerals (2006).

New PPS are published from time to time which may replace existing PPG and PPS in whole or in part. Up-to-date information is available from the Government website or from local authority planning services. At the time of publication the Government were consulting on two new PPS:

Planning for a low carbon future in a changing climate supplements PPS1 by setting out how planning should contribute to mitigating climate change and adapting to its impacts. The PPS will replace the earlier supplement to PPS1 'Planning and Climate Change' and PPS22 'Renewable Energy'; and

Planning for a natural and healthy environment will replace *Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9); Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation (PPG17); Planning Policy Statement 7: Sustainable Development in Rural Areas (PPS7)* – in so far as it relates to landscape protection (paragraphs 21 to 23), soil and agricultural land quality (paragraphs 28 and 29) and forestry (paragraph 33).

This guidance may be updated to reflect any changes to Government policy arising from these documents.

Local Development Frameworks

The Planning and Compulsory Purchase Act 2004 introduced a new system of development plans that abolished Structure Plans and replaced District Local Plans with Local Development Frameworks (LDF). Local planning authorities are currently engaged in the process of replacing their local plans with LDFs. 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 (other than SPDs) 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 and Waste Development Frameworks. 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 including community involvement. They amplify existing policy and 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. 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 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 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 Cowshill 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.

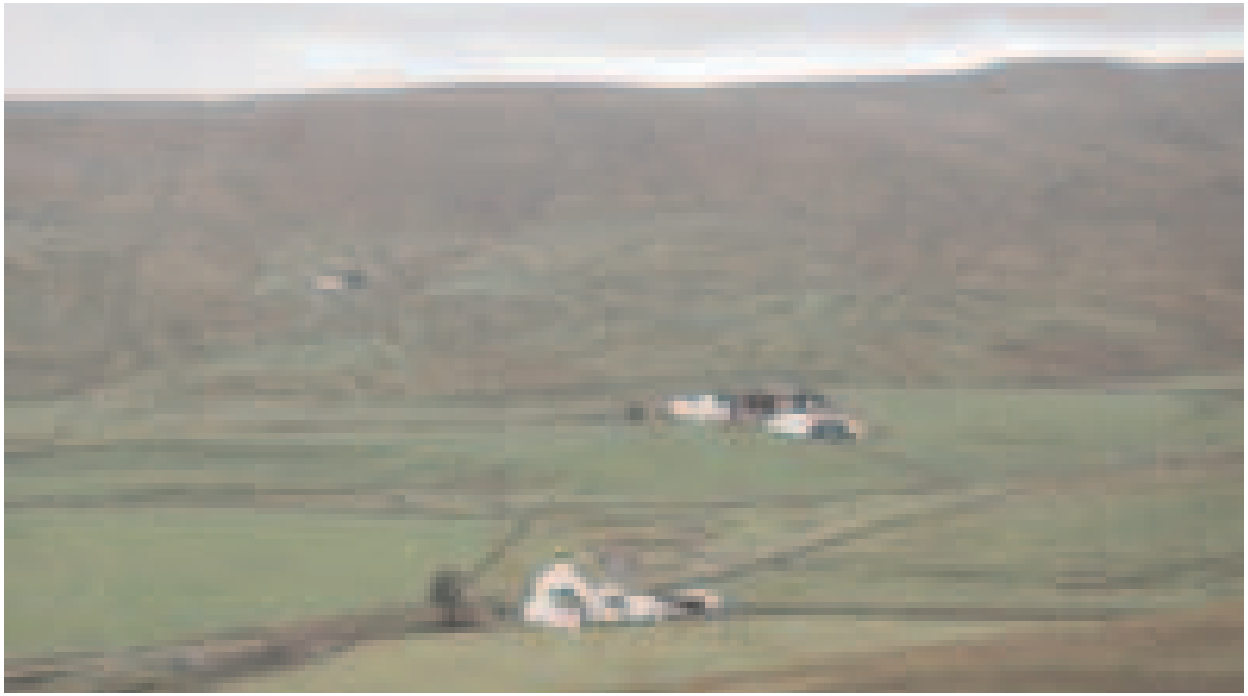
The Rookhope valley is, in many ways, Weardale in miniature, with the village itself set deep within a narrow valley at the junction between the richly wooded gorge of the lower valley and the open moorland mining landscape of the upper valley.

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 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

The 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.

Hunstansworth

The narrow dale head is relatively well wooded and inaccessible by car. Lead mining sites also appear in the upper reaches of the valley.

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 Eden Valley

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 Eden Valley 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

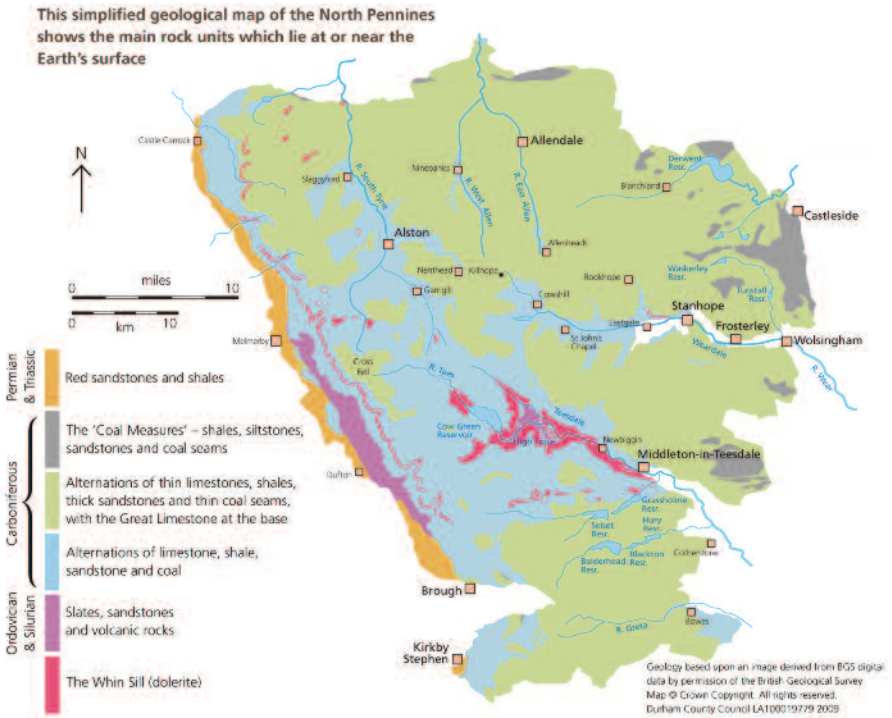
Geology

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.



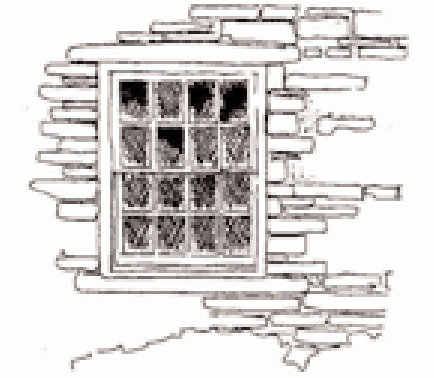
Building materials

Stone

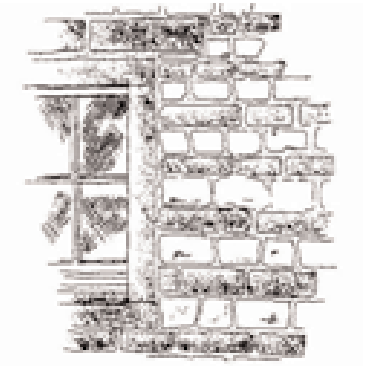
The visitor to the North Pennines can hardly miss the connection between the locally distinctive character of traditional buildings and the underlying geology of the AONB from which building material was won. The AONB is essentially stone building country; there is very little brick in use until the 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



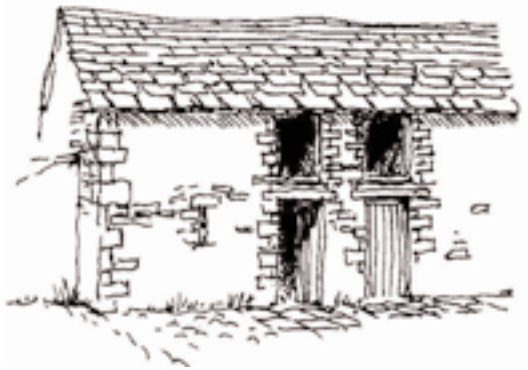
Red sandstone and limestone in the Eden Valley

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 where it is used 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 17th century to the 20th century 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 commonly found in the Eden Valley and in Teesdale and Weardale is 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 the house

Bastle House

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

A tiny cottage at Nenthead retains 'upstairs living'

Another longhouse with its door still in the original position

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-1780s 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 1930s, 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 around fold yards appear.

There are local characteristics such as 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 Eden Valley 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 (below).

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 1: North East. www.naturalengland.org.uk

Countryside Character: Volume 2: North West. www.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

The Northumberland Landscape Character Assessment. www.northumberland.gov.uk

Historic landscape character

Northumberland, Cumbria and County Durham councils have prepared, or are preparing, Historic Landscape Character Assessments. For further information contact the relevant county archaeologist.

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

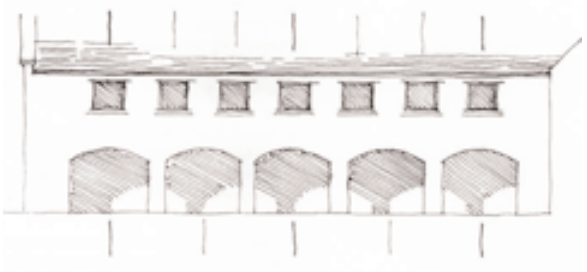
1. **Look at the guidelines in this document, which include pointers to good practice and sources of further information, such as other planning documents within the area covered by the AONB;**
2. **Survey your site or building and its setting to assess what features are worth keeping or protecting, and to identify any opportunities for enhancement measures, and take advice from others with knowledge of design, building conservation, the historic environment, landscape 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

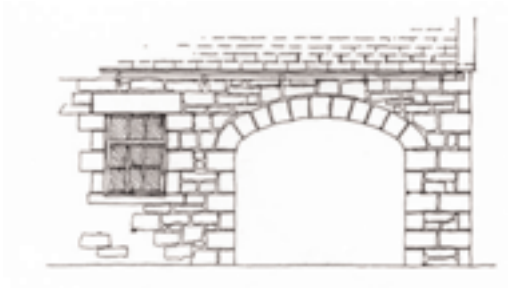


with bright complementary colour, particularly in smaller focal areas like doors or outhouse sheds;

- **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.

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

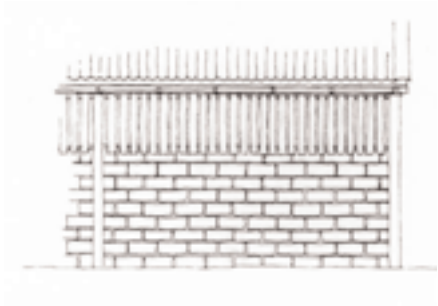
As well as being fit for its purpose a well-designed building should express something coherent about its structure and form. In traditional buildings the structural elements consisted of heavy stone walls punctured by openings for windows and doors, with the walls capable of supporting the loads of 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.



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

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.



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

Repair and maintenance works play an essential role in looking after both the fabric and the character of traditional buildings. Although these works can seem very minor or routine, they can have a substantial effect on a building's character over time. Taking care over the detail of relatively minor works – the re-pointing of stonework, the replacement of windows and doors or rainwater goods – will help conserve the character of the building for future generations.

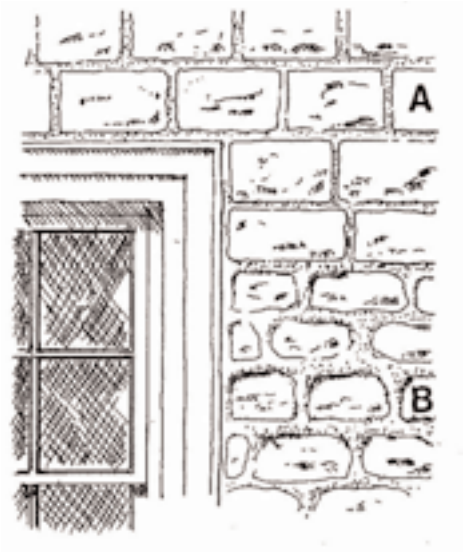
Repair and maintenance works do not require planning permission and are entirely for the decision of the property owner. However in the case of listed buildings or of buildings generally in Conservation Areas it will be necessary to obtain Listed Building Consent even for what may seem straight-forward 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 delivery 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.



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

Mortar slightly recessed allows the stones to 'read'

RM 1 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.

RM 2 Choose a mortar mix to suit the walling material and the degree of exposure. Take advice from a specialist or your local authority Conservation Officer.

RM 3 Advice from an architect or building specialist will be helpful in selecting an appropriate mortar mix. For most traditional buildings non-hydraulic or hydraulic lime mortars are preferred. Mixes of 1 part of 'moderately hydraulic' lime (NHL3.5) to 3 parts of sand are often recommended for general pointing work and stronger mixes (2:5) or 'eminently hydraulic' lime (NHL5) for exposed areas.

RM 4 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.

RM 5 If a wall is being completely rendered, or all of the render is being replaced, the best option is usually an un-gauged non-hydraulic lime mortar using well-matured lime putty and sharp and well-graded aggregate in a 1:5 ratio.

RM 6 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.

RM 7 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.

RM 8 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.

RM 9 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.

RM10 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 precision.

RM11 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.

RM12 Bats and nesting birds often use crevices in buildings and there may be a need to retain some crevices to comply with the relevant protected species legislation. Re-pointing should be avoided between November and March to prevent entombing bats when they are most vulnerable, and crevices where the bottom cannot be seen should not be re-pointed.

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 was a commonly used detail of rendering random rubble stonework in the main wall surface but forming dressed stone window and door surrounds; these surrounds are brought slightly forward so that render runs neatly into their outer edge. 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

RM13 There is a strong case for retaining shelter coats and render and avoiding scraping back to the underlying stonework.

RM14 Where renders are to be replaced a slightly stronger mix may be appropriate but, as with pointing, should not be stronger than the stone.

RM15 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.

RM16 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.

RM17 The design of the blockwork and render to include movement joints against early shrinkage cracking has to be taken seriously.

RM18 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 in 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 roof often graded in diminishing courses

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

RM19 Whatever the case may be for repair and maintenance the best course is to replace like for like to achieve a matching invisible mend.

RM20 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.

RM21 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.

RM22 Modern fibre-cement profiled sheeting has superseded asbestos and plastic coated metal of an appropriate colour provides an acceptable alternative for farm buildings.

RM23 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.

RM24 Repair works to roofs can disturb bats or nesting birds and you will need to comply with the relevant legislation (see page 62).

Profiled and coloured sheet material on farm buildings, Upper Teesdale

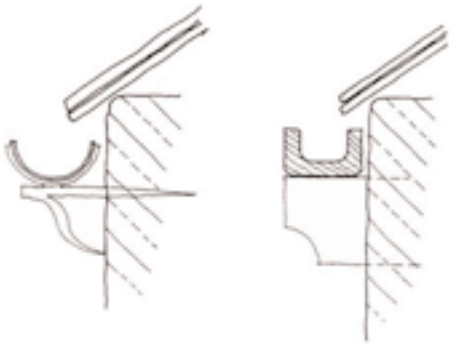
Rainwater goods

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 from a roof or can be damaged by ladders.

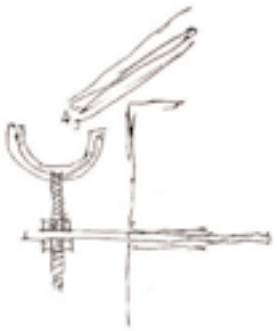
RM25 Gutters are usually fixed by simple rafter straps or decorative spiked brackets made by local blacksmiths.

RM26 Some Victorian and Edwardian buildings have gutters supported by elaborate timber fascias. These traditional features should be retained.

RM27 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.

RM28 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.

RM29 Bare wood should be allowed to dry before new putty is applied, the surface primed and brought forward with an undercoat and finish coat.

RM30 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.

RM31 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.

RM32 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.

RM33 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.

RM34 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.

Many buildings will be altered, extended or even converted to a new use at some point during their life. If carried out sensitively this can allow old buildings to be adapted to meet changing needs while retaining their character and meaning. If done badly it can damage both the character of the building and its wider setting. When dealing with planning applications in the AONB, local planning authorities will 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.

Alterations and extensions can have impacts on archaeology, protected species, and established vegetation. Refer to the guidance and standards on pages 62, 76 and 87 etc and consult your local authority archaeologist, ecologist, tree officer or landscape architect at an early stage.

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 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 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.

AE 1 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.

AE 2 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.

AE 3 Gutters are usually fixed by simple rafter straps or decorative spiked brackets made by local blacksmiths.

AE 4 Modern fascia boards to support gutters are unnecessary, present a continuing maintenance problem and detract from the appearance of a building.

AE 5 Plastic rainwater goods may seem like a cheap alternative but are not robust and frequently buckle following a snow slide from a roof or can be damaged by ladders.

AE 6 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 with fairly steep pitched main roof slopes providing sufficient space in the roof void to make conversion worthwhile.

Dormers on the Allendale Inn do not break the main roofline

AE 7 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.

AE 8 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.

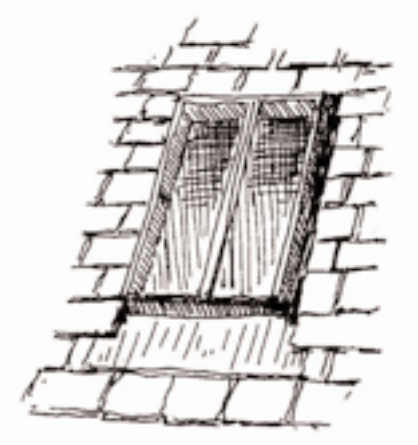
AE 9 Flat felted roofs to small dormers are not an acceptable form.

AE10 Alterations to loft spaces can affect bats and you will need to comply with the relevant legislation (see page 62).

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.

AE11 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 little 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.

There are nevertheless a wide variety of attractive porches to be found across the AONB. The best examples often have a stone base with timber-framed windows and door. Robust versions may be built entirely of stone. More decorative porches – often dating from the late 19th century – may feature elaborate timber barge boards and finials. 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.

AE12 The design of a porch should mirror that of the building.

AE13 The porch must be in proportion to the house.

AE14 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 presents 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

AE15 The recommendations already set out in relation to extensions apply generally also to conservatory extensions.

AE16 Special consideration must be given to the position of a glass building to avoid damage from heavy falls of snow off higher roofs.

AE17 Upper floor windows should always remain accessible for cleaning and maintenance without having to reach across conservatory glass to do so.

AE18 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

The design of windows and doors can have a strong impact on the character of a building. Planning Authorities understand many home-owners desire to reduce draughts, improve insulation and save fuel costs. This can be achieved with features that are in keeping with the character of traditional buildings.

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".

AE19 Avoid using uPVC windows and doors in traditional buildings.

AE20 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.

AE21 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.

AE22 Physical damage to uPVC (break-in or distortion) is not possible to repair; replacement becomes the only option.

AE23 uPVC and metal windows require significantly more energy to produce than timber windows and involve costs of pollution and the disposal of hazardous chemicals.

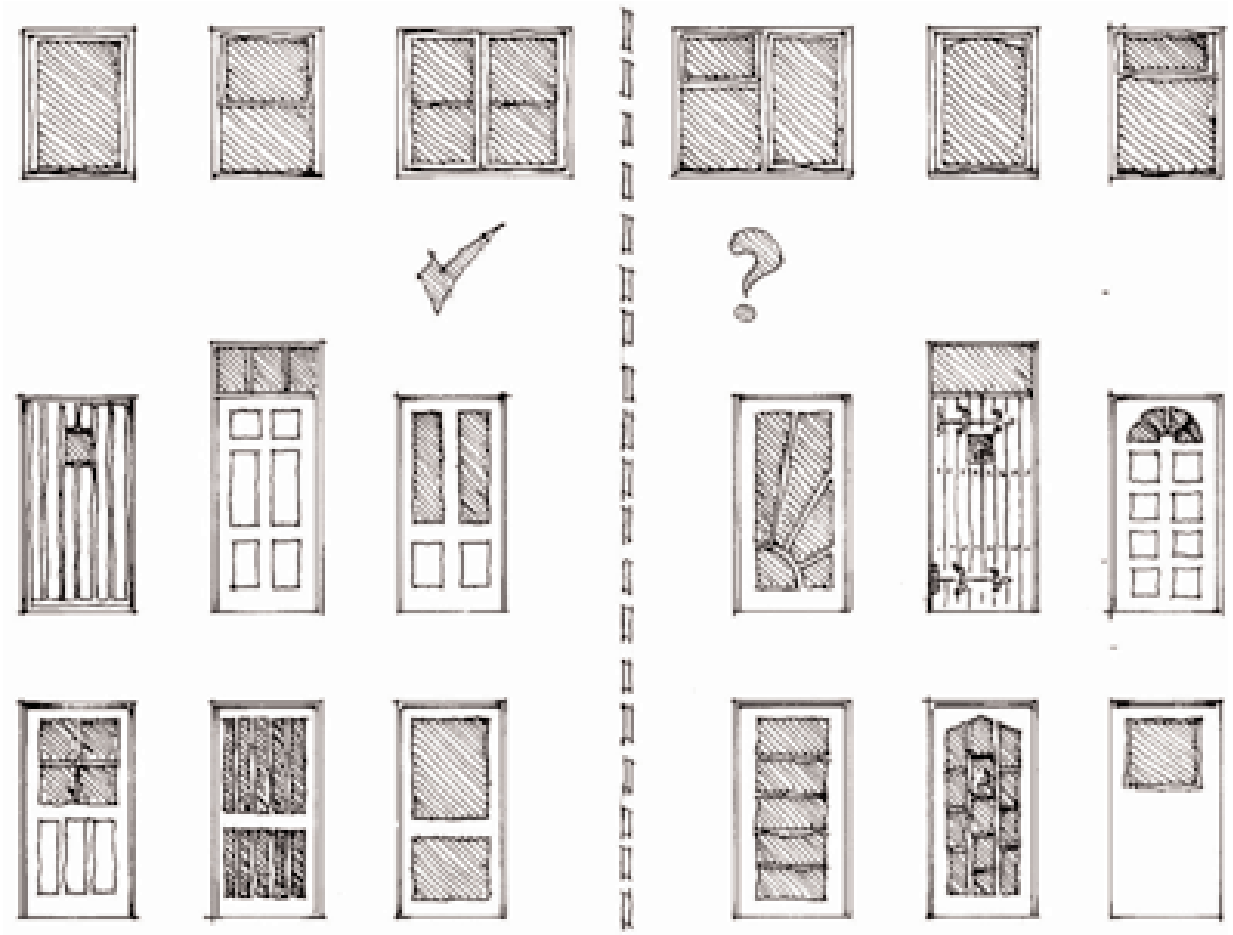
This uPVC door tries to emulate traditional detailing and style but fails miserably. Two different styles of window have been used, the lower one far two wide and with inappropriate 'stick-on' glazing beads

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

AE24 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.

AE25 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.

AE26 The biology of an old building is different from a modern structure. The Building Regulations encourage making provisions 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.

AE27 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.

AE28 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.

National and local planning policies 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. 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.

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. Where it is necessary to more fully understand the significance and character of a building, an historic building assessment will be required which needs to be undertaken by a suitably qualified specialist. This work will need to be completed at a pre-application stage in line with PPS5 policies HE6 and 8.

Where there is sufficient understanding of the significance and character of the building, a record of the building may be required prior to its conversion. The recording work can be carried out as part of a planning condition as per PPS5 policy HE12 and should be undertaken by a suitably qualified specialist.

- **C 1** Consult your County Archaeologist and LPA Conservation Officer at an early stage.
- **C 2** Appearance and character are 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.
- **C 3** 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.
- **C 4** 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.
- **C 5** Conversions can have impacts on protected species. Refer to the guidance on page 62 and consult your local authority ecologist at an early stage.

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 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.

For guidance on the following aspects of consolidation and repair:

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

see **Repair and Maintenance**

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

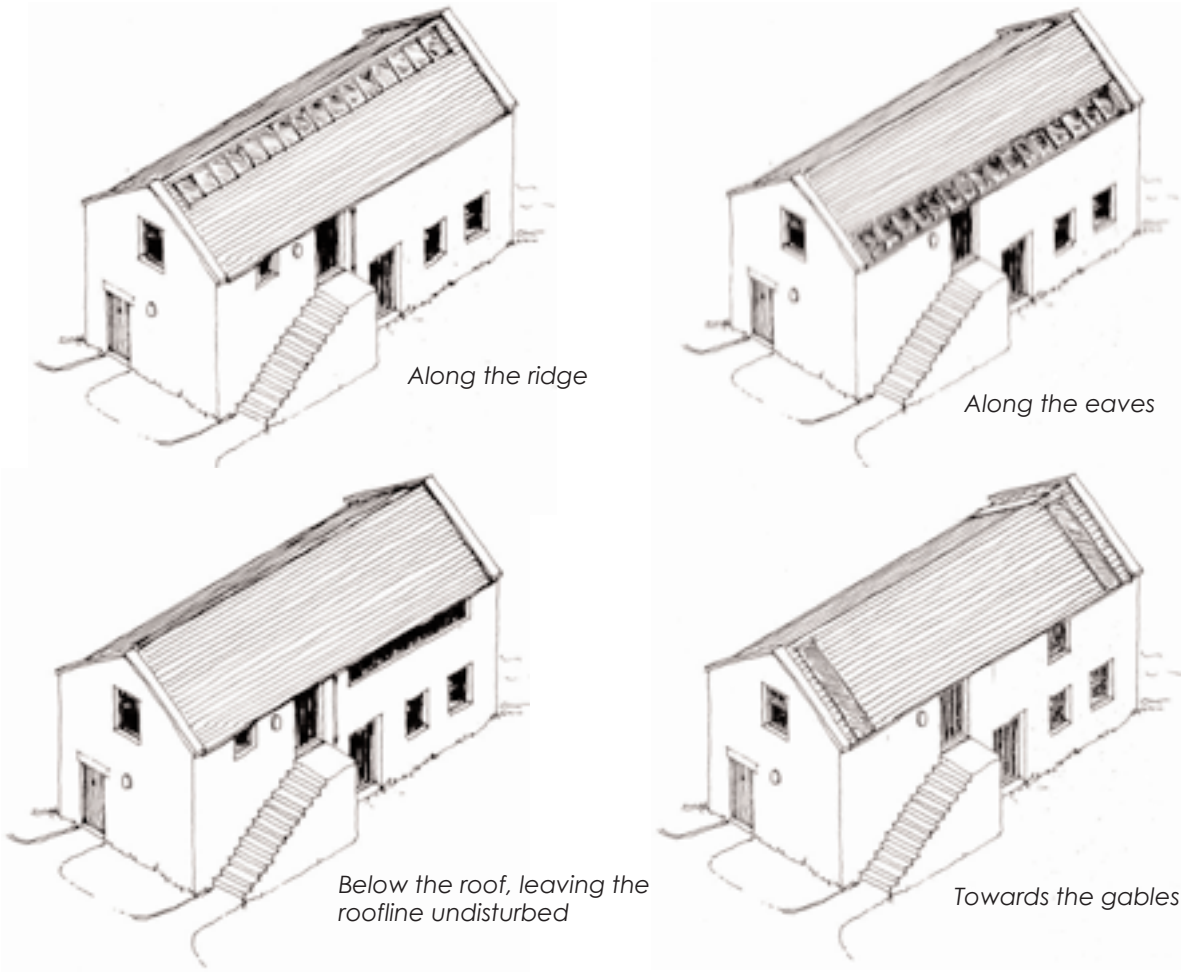
Introducing daylight

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.

Alterations to roof spaces can affect bats and you will need to comply with the relevant legislation (see page 62).



Alternative ways of handling more extensive rooflighting

C 6 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.

C 7 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.

C 8 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.

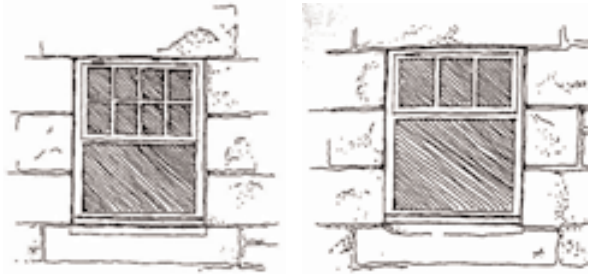
C 9 Often a small central window in a gable end might be successful and the alteration of the low level ventilator openings to become windows close to the upper floor level will provide a spread of subdued light across the floor.

C 10 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.

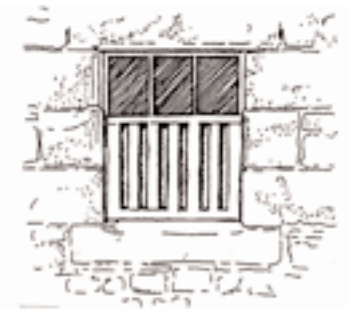
Windows

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 may 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

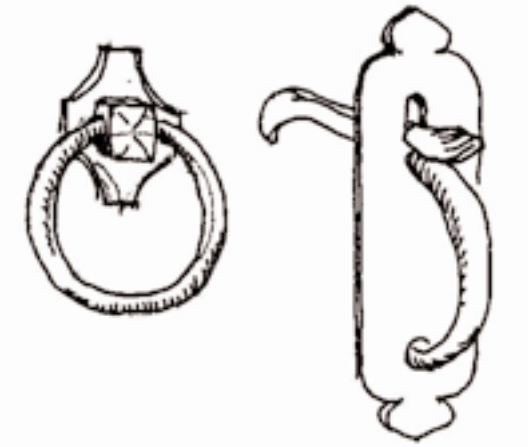
C 11 It is expensive and unnecessary to hack away at existing openings to make them the right size for standard off the peg windows when the new windows can be purpose made at less expense to suit existing opening sizes.

C 12 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.

C 13 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.

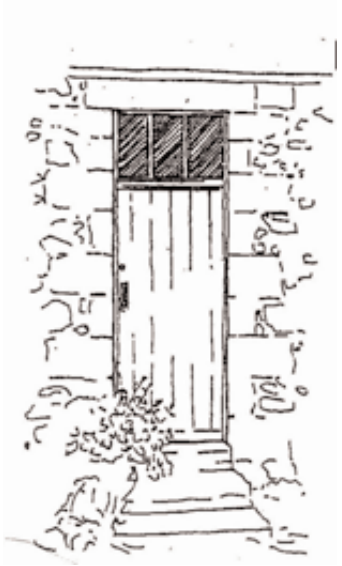


C 14 Don't throw away old ironmongery. Details like this are clues to the past and part of a building's character.

C 15 In most conversions the door will follow the typical boarded pattern of the original doors.

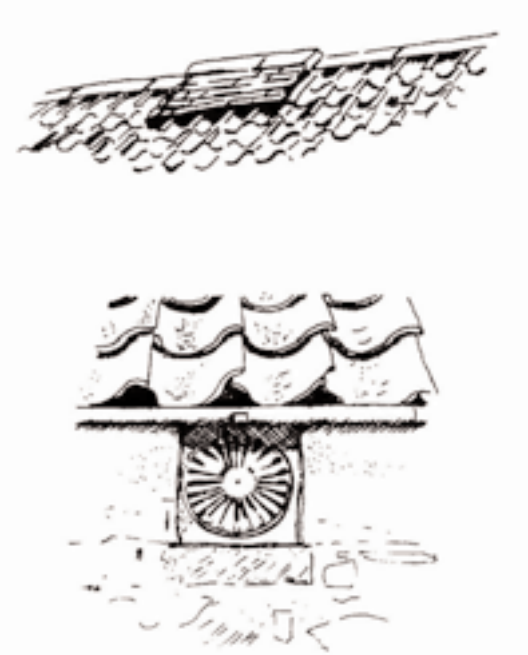
C 16 Though glazing is not common in traditional farm doors a simple glazed opening occupying about a third of the width of the leaf or a glazed overpanel will provide some light to the interior while retaining the character of the building.

C 17 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.



C 18 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.

C 19 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.

C 20 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.

C 21 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.

C 22 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.

C 23 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.

C 24 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.

C 25 Adjustable drive-in brackets are still available and this form and material of guttering is preferred.

C 26 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.

C 27 PVC gutters in the end become brittle with exposure to UV light.

C 28 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.

C 29 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.

C 30 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.

NB 1 Good design concerns itself with the fundamental management of spaces, structure and materials.

NB 2 It must respond to aspects of setting, orientation, topography and exposure.

NB 3 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.

NB 4 Good design must also consider how to ensure durability, low maintenance and long-term sustainability.

New building can have impacts on archaeology, protected species, and established vegetation. Refer to the guidance and standards on pages 62, 76 and 87 etc and consult your local authority archaeologist, ecologist, tree officer or landscape architect at an early stage.

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?

Whatever the type of development, 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, which can feed into a Design and Access Statement, which is required to be submitted with most planning applications.

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

NB 5 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; and
- how the development will minimise waste in the preparation of the site for construction.

New housing

There is scope for housing development in many villages, and particularly those that have local services and facilities. Planning authorities will wish to ensure that this takes the form of good quality housing which meets local need and helps conserve and enhance the AONB's environment.

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

NB 6 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 courtyard scene retains shelter and the density of the village

Contemporary interior: a freely adaptable space within a simple envelope

NB 7 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. Further information can be found on the Living Roofs website www.livingroofs.org.

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

Archaeology and historic features

Not all 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 archaeologist indicates that there are reasonable grounds for assuming that a site has archaeological potential, local planning authorities will require a developer to arrange for an archaeological field evaluation to be carried out before determining the application. If assessment or evaluation is required, it will need to be carried out by suitably qualified professionals at a pre-application stage to comply with PPS5 policies HE 6 and 8. Early pre-application consultation with the local authority archaeologist is therefore recommended. Mitigation work such as excavation and/or watching brief can usually be dealt with by a planning condition as per PPS5 policy HE12.

When siting a new building, consideration should be given to the visual impact the building could have on designated heritage assets such as Scheduled Ancient Monuments and Listed buildings (as per PPS5 policies HE1, 6, 8 and 10). Pre-application consultation with the local authority archaeologist and conservation officer is recommended.

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 deign 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.

NB 8 Integration within or close to an 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 developing 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

NB 9 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 4.5m 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.

NB10 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.

NB11 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.

NB12 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.

NB13 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.

NB14 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.

NB15 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.

NB16 Care should also be taken so that the siting of new building will not prohibit future expansion.

NB17 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.

NB18 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.

NB19 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

NB20 Isolated buildings should, where possible, take advantage of natural dips in the land or be set against a hillside to reduce the visual impact.

NB21 Skyline sites or sites prominent from public viewpoints should be avoided.

NB22 Careful siting in relation to existing mature trees will help merge a new building into the landscape.

NB23 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.

NB24 If used to best advantage, sloping ground can help reduce the scale and impact of large, modern buildings.

NB25 Areas with complex natural landforms like minor valleys or steep bluffs should be avoided.

NB26 Aligning buildings parallel to the contours helps reduce the scale of the development platform.

NB27 '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.

NB28 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.

NB29 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.

NB30 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.

NB31 The use of slopes and natural features in the siting of a building can reduce exposure to the weather.

NB32 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

Watercourses are of great importance for water resources, water quality, nature conservation, fisheries and recreation, and often make a significant contribution to the character of the landscape. Adverse impacts on watercourses, including both direct physical impacts and impacts through pollution or changes to their hydrology, should be avoided.

It is good practice to leave an 8 metre easement between a new building and any watercourse. This reduces the chances of potential pollution from spillages and seepage entering the watercourse either directly or through existing drainage systems and can reduce flood risk. Any works within 8 metres of a watercourse may be subject to byelaws and may require the prior written consent of the Environment Agency (EA).

Culverting of watercourses should be avoided. The consent of the Environment Agency is required for the culverting and/or diversion of any watercourse. There is, however, a presumption against culverting, and the EA would be likely to object in most circumstances. Opportunities should be taken to remove existing culverts where possible as this reduces potential flood risk and increases biodiversity.

National Planning Policy recommends avoiding any development in areas at risk of flooding. Table D2 of Planning PPS 25: Development and Flood Risk states that land and buildings used for agricultural use are

NB33 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.

NB34 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.

NB35 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.

classed as 'less vulnerable' development. Less vulnerable development is not permitted in Flood Zone 3b (the functional floodplain) but is permitted in Flood Zones 3a (high probability) Flood Zone 2 (medium probability) and Flood Zone 1 (low probability). All development proposals in these zones should be accompanied by a Flood Risk Assessment (FRA), the minimum requirement for the FRA can be found in Annex E of PPS25.

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 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 in 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. Any farm in England and Wales that makes or stores silage or stores slurry or stores more than 1,500 litres of fuel used for agricultural purposes and has storage facilities that were constructed or subsequently altered after 1991 will need to conform to the 'Control of Pollution (Silage, slurry and Agricultural Fuel Oil) Regulations 1991. A summary of requirements can be found on the Environment Agency's website: wwwenvironmentagency.gov.uk

Further guidance can be found in *A Code of Good Agricultural Practice for farmers, growers and land managers – Protecting our Water, Soil and Air* produced by DEFRA, or by contacting the Environment Agency directly.

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).

NB36 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.

NB37 Timber products can be treated and stained, vastly improving the overall appearance of the building.

NB38 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.

NB39 In some locations, painting or rendering masonry walls would be an acceptable treatment.

NB40 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,

NB41 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

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.

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.

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

NB42 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.

NB43 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.

NB44 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.

NB45 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 his large barn

NB46 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.

NB47 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 1960s, 70s and 80s 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

NB48 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 a new 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
	BS 18.B.29	Slate Blue
Walls	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.

NB49 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.

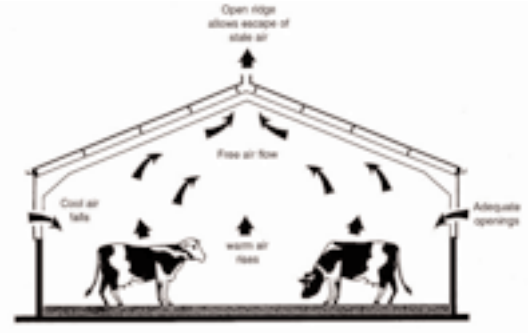
NB50 If steel cladding is to be used on livestock buildings this should be coated with co-polymer on both sides to reduce the risk of corrosion caused by high humidity and condensation.

NB51 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 board. 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:

NB52 If the spans have different roof levels due to sloping ground, sufficient inlet can be built below the eaves for each span.

NB53 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).

NB54 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, effluent and waste handing

The design, construction and use of silage stores, and facilities for slurry and dirty water, is heavily constrained by the need to avoid pollution from effluent.

Anyone proposing to construct a new, reconstructed, or enlarged agricultural structure (silage effluent tank, slurry store, reception pit) must notify the Environment Agency under Section 11 of the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991.

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

Livestock slurry, silage effluent or manure must not enter rivers, streams or other watercourses. A pollution offence will have been committed if polluting effluent enters surface waters or groundwater (see also Watercourses above).

The siting of the silage and other stores must be considered carefully in respect of the surrounding landscape. The construction of clamps, tanks and pits can affect important habitats or species, landscape or archaeological features. Care should be taken to avoid sensitive sites.

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.

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.

NB55 Take advice from the Environment Agency at an early stage in planning your proposals.

NB56 Avoid sensitive locations: consult your local authority archaeologist, ecologist, tree officer or landscape architect.

NB57 Where possible select sites that are screened from sensitive view points (roads, footpaths, other properties) by topography, vegetation or existing farm buildings.

NB58 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.

NB59 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.

NB60 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.

NB61 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.

NB62 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.

NB63 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 measures may include stone cladding, painting, rendering or grassed earth banks against the walls.

NB64 As with silage liquor, it is essential that liquid run-off is detained and subsequently disposed of without the run-off entering a watercourse or rainwater drainage system.

NB65 The base of any store should be sloped so that any liquid runs off into a collection channel. Such liquids should be collected in a suitably sized tank and be directed to a slurry store.

NB66 A clean and dirty water separation system will minimise the volume of polluting liquids.

NB67 Wherever possible these should be integrated with other buildings rather than in prominent positions as seen from public viewpoints.

The way a building sits within the landscape is often as important as the design of the building itself. In the vernacular landscapes of the AONB, buildings are often located to take advantage of variations in slope, sunlight and shelter, to respond to the need for access and water, to allow for the supervision of a tract of land or to enjoy a beautiful view. The relationship of any new building to its surroundings needs to be handled with care, and the detailing of any associated landscaping – from the planting of trees to the selection of paving materials - should be informed by what is present in the locality.

Landform

It is easy to bring in heavy machinery to a sloping site and level the ground to suit a building designed for a flat site, 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.

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

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

LP 1 Aligning buildings parallel with the contours helps reduce the scale of the development platform.

LP 2 When aligning buildings across the contours, a 'stepped' form will reduce the building's footprint.

LP 3 Building in to the ground, rather than clearing a platform to build on, will reduce the scale of disturbance.

LP 4 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.

LP 5 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.

LP 6 Battered dry-stone retaining walls can be very effective and are characteristic of the area.

LP 7 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.

LP 8 Engineered slopes that can't be improved should be disguised. Planting with native trees and shrubs can help assimilate these in time.

facing towards sensitive viewpoints should be created at shallow gradients (>1:3). Inward facing slopes can be steeper or retained by walls.

Soils

Soils are a finite resource and should be conserved carefully and re-used appropriately. Detailed guidance on the conservation of soils can be found in the North Pennines AONB Planning Guidelines.

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 most works to trees, including felling, require notification to the local planning authority. Damage to trees is an offence. 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.

Trees and shrubs may also harbour protected species, particularly bats (see page 62), and nesting birds and you will need to comply with relevant legislation.

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

The local planning authority may request an Arboricultural Implication Assessment (AIA) where they need to satisfy themselves that all factors have been duly considered in the design process and that the development will not prove detrimental to the retained trees and hedges. The AIA will also address issues such as the long term effects of changes to surface levels or the future need to prune or remove trees and hedges because they cast shade or encroach upon property. The AIA must be carried out by a suitably qualified arboriculturalist with experience of trees on development sites.

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 ancillary features such as paving and paths, garden walls, changes in level or drainage should have regard to the rooting area of the tree which should be avoided entirely unless there are no practical alternatives, and then only if the works can be carried out without any adverse affect on tree roots.

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 it 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. Consult your local authority ecologist and archaeologist at an early stage.

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. Well-constructed modern foundations and drains should not be affected but older features may be more vulnerable. Taking specialist advice from a

Robust shelter planting in Weardale

landscape architect, arboriculturalist 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

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	**Hazel**	**Blackthorn**
Silver birch	**Holly**	**Hawthorn**
Rowan	**Crab apple**	**Juniper**
Bird cherry	**Guelder rose**	

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.

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);

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

- 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 are 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

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

than larger standard trees which will often be slow to establish, 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:

- 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;
- Some species, such as horse chestnuts, can produce heavy leaf fall. This should be a consideration when planting close to roads and paths or drainage gullies; and
- Trees such as limes and sycamores are affected by sugar secreting aphids which can cause mildew below them. This should be a consideration when planting close to car parks or 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. As a rule of thumb, larger species should be planted no nearer to a dwelling than two thirds of their expected mature height. This will depend on soil and situation: on many sites in the North Pennines trees will never attain the potential heights quoted for them in national data. Take advice from your local Tree Officer who will have local knowledge.

Most tree roots grow in the top 60cm (2ft) 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. This is unavoidable in some situations and usually best dealt with through minor repairs to the structures. For many people this is a small price to pay for the pleasure of living with a tree and shouldn't lead to overly conservative planting practices.

Roots are opportunistic and will grow to exploit moisture and nutrients. Fine roots can penetrate minute cracks and joints in drains. This is not an issue for new buildings where well-designed and properly constructed modern drains and foundations should be impervious to the effects of tree roots, but may be a consideration when planting close to older buildings and structures.

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. Larger varieties of willow, poplar and coniferous species 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

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

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

LP 9 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.

'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.

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.

Polypody fern and lichen in Allendale

LP10 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.

LP11 Garden walls should match either the building or the local drystone walling style.

LP12 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.

LP13 Generally the coursing of stone walls should follow the contours of the ground.

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 advice of your local planning officer.

Hedges in the North Pennines date from many periods of enclosure including parliamentary enclosures of the 18th century and earlier, piecemeal enclosures, of village fields and wastes from the medieval period onwards. Some of these hedges, and particularly 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 20 m 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.

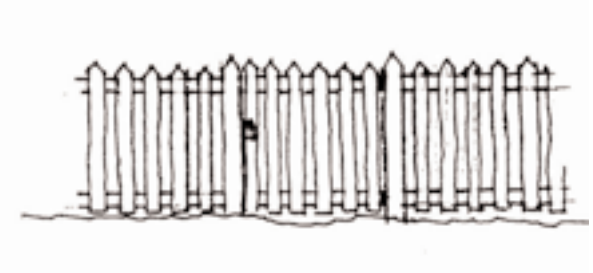
Fences, gates and barriers

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.

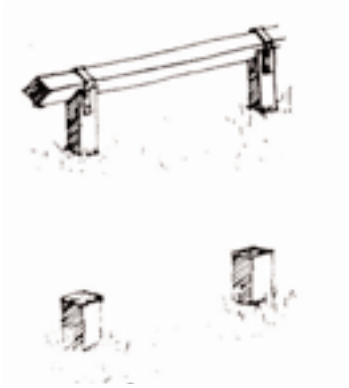
Elaborate, ornate or high railings and gateways have a suburban quality and should be avoided. Openings and driveways should be in scale with their surroundings. Gates in fences should reflect the style of fence. For gates in stone walls there is more freedom, but timber gates are rarely out of place.



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

LP14 Parking areas and driveways are better located at the side or rear of buildings where cars will be less prominent.

LP15 It helps if garages can also be tucked round the back of a building not directly visible from the public road.

LP16 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. The negative influence of the excess of light affects organisms which are active at night e.g. insects, mammals and invertebrates. Birds also suffer from excess light. 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 reduce harmful effects on ecology whilst reducing energy consumption.

> ***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***

LP17 Consider whether lighting is necessary at all and if it is, where it is needed and why.

LP18 Direct light only where it is needed, downward rather than upward, or focused on the particular task.

LP19 Avoid the direct illumination of trees.

LP20 Use low intensity lights to reduce glare and dark spots. Softer and more uniform light is often better for security and safety.

LP21 Adopt limits for the level of illumination appropriate to the wider setting of the development.

LP22 Think about views from the wider countryside and making best use of the screening benefits of topography, planting and buildings.

LP23 Look for opportunities to reduce the need for lighting, for example by using CCTV instead of security lighting. Use motion sensors for security with minimum setting for the lighting period.

LP24 Lighting should avoid bat-roost access points and flyways.

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 and Development: Supplementary Planning Document

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 1970s, 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. Problems may be encountered such as residual pollution from previous use, and brownfield land often has significant biodiversity interests which may preclude or restrict development.

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 in 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 on the right.

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

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.

SC 1 Minimise volume of excavation through consideration of building footprint and appropriate foundations.

SC 2 Consider use of crushed demolition material in the hardcore for the building.

SC 3 Consider separation, storage and re-use of:
- turf rolled;
- topsoil reused;
- seeds kept from existing plants; and
- compost from existing plant matter.

SC 4 Separation of waste streams that could be sold or used again elsewhere.

SC 5 Reuse of spare materials on site – off-cuts for shops, etc.

SC 6 Delivering programmes to reduce length of storage time on site with risk of damage and subsequent disposal as waste.

SC 7 The delivery of building materials should be planned to:
- allow for inspection of materials;
- reject/return defective materials;
- return protective packaging;
- agreement with plasterboard manufacturer that waste will be collected and re-used; and
- consider timing of delivery to avoid storing materials on site, and reducing the risk of damage and waste.

SC 8 Use of multi-use palettes, preferably in recycled plastic, for protection and storage of materials, to reduce damage and waste.

SC 9 Use of existing markets for refurbishment waste to reuse unwanted materials, including windows, timber, bathroom suites and kitchens.

Handling waste responsibly

The Duty of Care regulations for dealing with waste materials are applicable for any off-site movement of wastes. The developer as producer therefore has a duty of care to ensure all materials removed go to an appropriate licensed disposal site and all relevant documentation is completed and kept in line with regulations.

If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably authorised facility. If any controlled waste is to be used on site, the applicant will be required to obtain the appropriate exemption or authorisation from the Environment Agency.

In England it is a legal requirement to have a Site Waste Management Plan (SWMP) for all new construction projects worth more than £300,000. Further information on the SWMP can be found at www.netregs-swmp.co.uk

More advice on waste movement can be found on the Environment Agency's website: www.environment-agency.gov.uk

SC 8 Where new materials are being specified, consider the possibility for inclusion of recycled elements, for example, recycled cellulose insulation.

SC 9 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.

SC10 Systems which have been developed to use a reduced volume of materials, such as timber I-beams rather than solid beams, should be considered.

SC11 Design for durability, to reduce the amount of maintenance required and minimise future consumption of resources.

Minimise energy consumption 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.

SC12 Seek shelter from the natural topography of the site to reduce heat loss from the building.

SC13 Consider the influence of the building for on localised wind patterns.

SC14 Take advantage of managed solar gain in the arrangement of sheltered south and west facing surfaces and windows.

SC15 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.

SC16 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; and
- 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:

SC17 Reduce volume of goods ordered by, for example, organisation of site procedures, re-use or repair of existing materials wherever possible.

SC18 Specify products from sustainably managed sources, which use minimal volumes of raw materials, and promote fair trade.

SC19 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.

SC20 Source materials locally where possible to invest in the local economy and reduce transport energy.

SC21 Select products free from ozone depleting substances, solvents, volatile organic compounds, etc, to reduce pollution and provide a healthy indoor environment.

SC22 Consider products with the potential for re-use or recycling to avoid landfill.

SC23 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.

SC24 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; and
- 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; and
- The activities and behaviour of occupants.

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 this 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.

Renewable energy installations can have physical or visual impacts on other environmental resources including heritage assets such as Scheduled Ancient Monuments and listed buildings, or on protected species or established vegetation. Refer to the guidance and standards on pages 62, 76 and 87 etc and consult your local authority archaeologist, conservation officer, ecologist, tree officer or landscape architect at an early stage. Further guidance on these technologies can be found in the North Pennines AONB Planning Guidelines.

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.

SC25 Solar panels should 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; and
- 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 panels (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 4,500kWh 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 they are to be in a Conservation Area.

SC26 Micro wind generation projects require great care in the siting of turbines:

- Avoid skyline locations;
- Avoid siting within 5m 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; and
- Locate turbines with the rotor tip at least 50m away from habitat features such as woodland or hedgerows used for foraging/commuting and bat roosts.

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 CO_2 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 required, 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

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 rare (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; and
- Economic dishwashers/washing machines

Grey water

- Consider 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

The proposed means of foul drainage should be in accordance with Circular 03/99 *Planning requirements in respect of the use of non-mains sewerage incorporating septic tanks in new development.*

The presumption must always be to provide a system of foul drainage discharging into a public sewer. If this is not possible taking into account all the factors in Circular 03/99, a package treatment plant may be considered (there are circumstances where package treatment plants are unsuitable owing to sporadic occupation) and only when it is proved that the above two options are not feasible should a septic tank be considered.

Some non-mains drainage systems may require an environmental permit from the EA, although certain activities are exempt from the requirements. In order to qualify for an exemption, your discharge or activity must meet certain criteria. If you cannot meet these criteria you will need to apply for a permit. More information on small discharges of domestic sewage effluent, permits and exemptions can be found on the Environment Agency's website: www.environment-agency.gov.uk

To help you choose the correct sewage disposal option, you can consult, *Pollution Prevention Guidelines – Treatment and disposal of sewage where no foul sewer is available: PPG4*, which includes information about the treatment and disposal methods available, maintenance and legal requirements. A copy of this guidance can be found on the Environment Agency's website.

Solutions such as composting toilets and reed beds are ideal in environmental terms, however they 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.

You can reduce the volume of external surface water drainage through sensitive 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.

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

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 

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.eca.gov.uk

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Appendix 2: Supplementary Planning Documents

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

Trees and Development SPD 2009. Countryside Design SPD 2010. Designing Out Crime SPD 2009. Energy Efficiency SPD (Draft)

Eden District Council

Shopfront 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 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; and
- 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 and 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; and
- 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.

Many trees and hedges are protected by law. Before doing any works that would affect trees or hedges on or around your development site you should consult your local authority tree officer.

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 Ged Lawson (seconded to the AONB Partnership), Robin Dower, Chris Woodley-Stewart and Elizabeth Pickett.

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Produced by the North Pennines AONB Partnership

NORTH PENNINES AONB PARTNERSHIP

Working together for the North Pennines

with the support of:

NATURAL ENGLAND

Cumbria County Council

Durham County Council

Northumberland County Council

CARLISLE CITY COUNCIL
www.carlisle.gov.uk

Eden District Council