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CONSERVATION OBJECTIVES and DEFINITIONS OF FAVOURABLE CONDITION for DESIGNATED FEATURES OF INTEREST:

These Conservation Objectives relate to all designated features on the SSSI, whether designated as SSSI, SPA, cSAC or Ramsar features.

Name of Site of Special Scientific Interest (SSSI)	
The Dark Peak	
Names of designated international sites	
Candidate Special Area for Conservation (cSAC)	South Pennine Moors
Special Protection Area (SPA)	Peak District Moors (South Pennine Moors Phase 1)
Ramsar :	Not Applicable
Relationship between site designations	

Version Control information	
Status of this Version (Draft, Consultation Draft, Final)	Draft (NB this file only includes table 1)
Prepared by:	Phil Eades
Date of this version:	12 February 2007
Date of generic guidance on favourable condition used:	Birds guidance version 2 August 2004 Uplands guidance November 2006
Other notes/version history :	The Ramsar criteria section of Table 3 has been removed because the Dark Peak is not a Ramsar site.

Quality Assurance information		
Checked by	**Name:**	**Date:**
	Signature	

Conservation Objectives and definitions of Favourable Condition: notes for users

Conservation Objectives
SSSIs are notified because of specific biological or geological features. Conservation Objectives define the desired state for each site in terms of the features for which they have been designated. When these features are being managed in a way which maintains their nature conservation value, then they are said to be in 'favourable condition'. It is a Government target that 95% of the total area of SSSIs should be in favourable condition by 2010.

Definitions of Favourable Condition
The Conservation Objectives are accompanied by one or more habitat extent and quality definitions for the special interest features at this site. These are subject to periodic reassessment and may be updated to reflect new information or knowledge; they will be used by Natural England and other relevant authorities to determine if a site is in favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

Use under the Habitats Regulations
The Conservation Objectives and definitions of favourable condition for features on the SSSI may inform the scope and nature of any 'appropriate assessment' under the Habitats Regulations. An appropriate assessment will also require consideration of issues specific to the individual plan or project. The habitat quality definitions do not by themselves provide a comprehensive basis on which to assess plans and projects as required under Regulations 20-21, 24, 48-50 and 54 - 85. The scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project. Natural England will advise on a case by case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect on the integrity of the site. The integrity of the site is defined in paragraph C10 of PPS9 as the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the sizes of populations of the species for which it was classified. The determination of favourable condition is separate from the judgement of effect upon integrity. For example, there may be a time-lag between a plan or project being initiated and a consequent adverse effect upon integrity becoming manifest in the condition assessment. In such cases, a plan or project may have an adverse effect upon integrity even though the site remains in favourable condition.

The formal Conservation Objectives for European Sites under the Habitats Regulations are in accordance with paragraph C10 of PPS9, the reasons for which the European Site was classified or designated. The entry on the Register of European Sites gives the reasons for which a European Site was classified or designated.

Explanatory text for Tables 2 and 3
Tables 2 and 3 set out the measures of condition which we will use to provide evidence to support our assessment of whether features are in favourable condition. They are derived from a set of generic guidance on favourable condition prepared by NE specialists, and have been tailored by local staff to reflect the particular characteristics and site-specific circumstances of individual sites. Quality Assurance has ensured that such site-specific tailoring remains within a nationally consistent set of standards. The tables include an audit trail to provide a summary of the reasoning behind any site-specific targets etc. In some cases the requirements of features or designations may conflict; the detailed basis for any reconciliation of conflicts on this site may be recorded elsewhere.

Conservation Objectives

The Conservation Objectives for this site are, subject to natural change, to restore to favourable condition the following habitats and geological features (or to maintain in favourable condition if features are currently judged to be favourable), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated (SSSI, SAC, SPA) as individually listed in Table 1.

Habitat types represented (Biodiversity Action Plan categories)

- Acid grasslands
- Bogs
- Bracken
- Broadleaved, mixed and yew woodland
- Dwarf shrub heath
- Fen, marsh & swamp
- Upland mosaic

Geological features (Earth Science Conservation Classification categories)

- EO – Inland outcrops
- EW – River and stream sections
- FM – Finite mineral, fossil or other geological
- IA – Active process geomorphological

Standards for favourable condition are defined with particular reference to the specific designated features listed in Table 1, and are based on a selected set of attributes for features that most economically define favourable condition as set out in Table 2 and Table 3.

Table 1. Individual designated Special Interest Features

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	**Annex 1 habitat** (with Natura 2000 code)	**Notified feature**	**Feature variants typical of the Dark Peak SSSI** (if applicable)			**Annex 1 species**	**Migratory species**	**Waterfowl assemblage**
Acid Grassland	Acid grassland (upland)	N/A	U2 - *Deschampsia flexuosa* grassland.		*				
			U4 - *Festuca ovina - Agrostis capillaris - Galium saxatile* grassland.	Species-rich *Festuca, Agrostis, Galium* sward.	*				
				Species-poor *Festuca, Agrostis, Galium* sward.	See note 4)				
			U5 - *Nardus stricta - Galium saxatile* grassland.		* But see note 5)				
			U6 - *Juncus squarrosus - Festuca ovina* grassland.		* But see note 5)				
Acid Grassland	Tall herbs (upland).	N/A	U16 *Luzula sylvatica – Vaccinium myrtillus* tall herb community.	Species-poor community of steep slopes.	*				
Bogs – Active	Blanket bog & valley bog (upland).	7130 – Blanket bog. (Priority habitat only when active).	M19b - *Calluna vulgaris - Eriophorum vaginatum* blanket mire, *Empetrum nigrum* ssp. *nigrum* sub-community.	Moderately species-rich blanket bog.	*	*			
				Heather - cotton-grass blanket bog (intermediate between M19b/M20). (See Variant 3b.1 in Table 3b).	*	*			
			M20 - *Eriophorum vaginatum* blanket mire.	Cotton-grass blanket bog. (See Variants 3b.2-5 in Table 3b).	*	*			
			M25 *Molinia caerulea – Potentilla erecta* mire on deep peat (> 50 cm).	*Molinia* blanket bog. (Has an affinity to M25 mire).	*				
		7150 – Depressions on peat substrates of the Rhynchosporion.	M3 *Eriophorum angustifolium* bog pool community.	Species-poor bog pools and wet hollows.	*	*			
Bogs – Inactive	Blanket bog & valley bog (upland).	7130 – Blanket bog. (Priority habitat only when active).	N/A	Dry blanket bog with heather. (See Variants 3b.6-9 in Table 3b). Has an affinity to H9c heath and M19 blanket mire.	*?	*?			
			N/A	Dry blanket bog with bilberry and crowberry. (See Variants 3b.10-12 in Table 3b). Has an affinity to H9a heath and M19 - blanket mire.	*?	*?			

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	**Annex 1 habitat** (with Natura 2000 code)	**Notified feature**	**Feature variants typical of the Dark Peak SSSI** (if applicable)			**Annex 1 species**	**Migratory species**	**Waterfowl assemblage**
		N/A	N/A	Bare peat.					
	N/A	N/A	N/A	Mineral soil exposed by peat loss.					
Bracken	N/A	N/A	N/A	Bracken over dense bracken litter. (U20 community).					
			U4/20 - U4/20-related species-rich bracken.	Scattered / dense bracken over acid grassland (U4/U20 transition).	*				
			N/A	Scattered / dense bracken over dry heath (H9/U20 transition).					
			N/A	Scattered / dense bracken over remnant woodland ground flora.					
Broadleaved, mixed and yew woodland	Woodland.	91E0 – Residual alluvial forests (*Alnion glutinoso-incarnae*). Priority habitat.	W7 *Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum* woodland.		*	*			
		91A0 – Old oak woods with *Ilex* and *Blechnum* in the British Isles.	W10e - *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland, *Acer pseudoplatanus – Oxalis acetosella* sub-community.		*	*			
			W11a - *Quercus petraea - Betula pubescens - Oxalis acetosella* woodland, *Dryopteris dilatata* sub-community.	Not confirmed in the Dark Peak	*	*			
			W16 - *Quercus* spp.-*Betula* spp.-*Deschampsia flexuosa* woodland.		*	*			
Dwarf shrub heath	Sub-alpine dry dwarf shrub heath.	4030 – European dry heaths.	H9 - *Calluna vulgaris - Deschampsia flexuosa* heath.	Mixed dwarf-shrub heath. (H9a - heath).	*	*			
				Heather-dominated dry heath. (H9c - heath).	*	*			
				Heather / grass mosaic. (H9c heath / U4 / U5 grassland mosaic).	*	*			
				Bilberry / grass mosaic. (H9a heath / U4 / U5 grassland mosaic).	*	*			
Dwarf shrub heath	Upland wet heath	4010 – Northern Atlantic wet heaths with *Erica tetralix*	M15 - *Scirpus cespitosus - Erica tetralix* wet heath, **and** M16 - *Erica tetralix - Sphagnum compactum* wet heath.	Degraded wet heathland. (Treated as one vegetation type).	*	*			

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	**Annex 1 habitat** (with Natura 2000 code)	**Notified feature**	**Feature variants typical of the Dark Peak SSSI** (if applicable)			**Annex 1 species**	**Migratory species**	**Waterfowl assemblage**
Fen, Marsh & Swamp	Transition mire, ladder fen and quaking bog (upland)	7140 – Transition mires and quaking bogs	M4 *Carex rostrata – Sphagnum recurvum* mire.	Usually small and very wet, dominated by bottle sedge and a layer of *Sphagnum fallax* and/or *Sphagnum cuspidatum.* (Not a notified feature).		*			
	Short sedge acidic fen (upland)	N/A	M6 *Carex echinata - Sphagnum fallax / denticulatum* mire.	Usually small, fairly species-poor sedge and moss-rich flushes, often within larger expanses of dense *Juncus effusus* flushes.	*				
	Mire grasslands and rush pastures (upland)	N/A	M23 *Juncus effusus / acutiflorus – Galium palustre* rush pasture.		*				
			M25 *Molinia caerulea – Potentilla erecta* mire.	*Molinia*-dominated mire on sloping organic soils, rather than degraded blanket peat (such as peat cuttings or otherwise damaged, more aerated edges of plateau bogs).	*				
	Spring-head, rill and flush (upland)	N/A	M32 *Philonotis fontana – Saxifraga stellaris* spring.		*				
			M35 *Ranunculus omiophyllus – Montia fontana* rill.		*				
		7220 – Petrifying springs with tufa formations (*Cratoneurion).*	M37 *Cratoneuron commutatum – Festuca rubra* spring.	Not actively forming tufa.	*				
Dependent Species									
Acid grassland	N/A	N/A	**Oak fern** *Gymnocarpium dryopteris*. North-eastern limit of British distribution, Derbyshire RDB species.		*				
Acid grassland	N/A	N/A	**Beech fern** *Phegopteris connectilis*. South-eastern limit of British distribution, Derbyshire RDB species.		*				
Bogs	N/A	N/A	**Bog rosemary** *Andromeda polifolia*. Declining, cRDB species and Derbyshire RDB. Not on SSSI citation.	Not a notified feature.					
Bogs	N/A	N/A	**Labrador tea** *Ledum palustre*. Some confusion as to status. See notes.		*				
Bogs	N/A	N/A	**Cloudberry** *Rubus chamaemorus*. South-eastern limit of distribution, Derbyshire RDB.		*				

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	Annex 1 habitat (with Natura 2000 code)	Notified feature	Feature variants typical of the Dark Peak SSSI (if applicable)			Annex 1 species	Migratory species	Waterfowl assemblage
Dwarf shrub heath	N/A	N/A	**Bearberry** *Arctostaphyllos uva-ursi*. Southernmost station in Britain, cRDB plant, Derbyshire RDB species.		*				
Fen, marsh & swamp	N/A	N/A	**Round-leaved sundew** *Drosera rotundifolia*. Locally uncommon species, largest populations in Peak District, Derbyshire RDB.		*				
Fen, marsh & swamp	N/A	N/A	**Lesser skullcap** *Scutellaria minor*. Near north-eastern limit of range, cRDB, Derbyshire RDB.		*				
Fen, marsh & swamp	N/A	N/A	**Ivy leaved bellflower** *Wahlenbergia hederacea*. North eastern limit of British distribution, Derbyshire RDB species.		*				
Inland rock	N/A	N/A	**Killarney bristle fern** *Trichomanes speciosum* (gametophyte form); sporophyte is extremely rare.	Not a notified feature, but see notes					
Upland mosaic		N/A	Assemblage of saxicolous lichen species (6 nationally scarce species): *Acarospora veronensis, Cladonia fragilissima, Fuscidea praeruptorum, Huila hydrophila, Lecanora subaurea, Lecidea plana, Lepraria zonata, Schaereria cinereorufa, Trapeliopsis glaucolepidea & Umbilicaria deusta.*	Not a notified feature, but see notes.					
Rivers & streams		N/A	Water vole.	Not a notified feature, but see notes.					
Upland mosaic	Assemblage of breeding birds.	N/A	Assemblages of breeding birds - Upland moorland and grassland with water bodies. Site index = 40.5	The following species were present at notification. However, the exact species present could change as long as the overall assemblage score does not fall by 25%: common sandpiper, curlew, dipper, dunlin, golden plover, grey wagtail, merlin, peregrine, (raven?), red grouse, redshank, ring ouzel, short-eared owl, snipe, teal, twite, whinchat, wheatear.	*				
Upland mosaic	Aggregations of breeding birds.	N/A	Curlew *Numenius arquata.*		*			*	
	Aggregations of breeding birds.	N/A	Dunlin *Calidris alpine.*		*		**		
	Aggregations of breeding birds.	N/A	Golden Plover *Pluvialis apricaria.*		*		*		

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	**Annex 1 habitat** (with Natura 2000 code)	**Notified feature**	**Feature variants typical of the Dark Peak SSSI** (if applicable)			**Annex 1 species**	**Migratory species**	**Waterfowl assemblage**
	Aggregations of breeding birds.	N/A	Merlin *Falco columbarius.*		*		*		
	Aggregations of breeding birds.	N/A	Peregrine *Falco peregrinus.*		*		**		
	Aggregations of breeding birds.	N/A	Ring ouzel *Turdus torquatus.*		*			*	
	Aggregations of breeding birds.	N/A	Short-eared owl *Asio flammeus.*		*		*		
	Aggregations of breeding birds.	N/A	Twite						
Upland mosaic	Invertebrate assemblage?	N/A	Invertebrate assemblage: Nationally Scarce Invertebrates. This will change to 'woodland' or 'moorland' etc, as a result of new guidance.	**Coleoptera**: *Bolitochara mulsanti* (Notable), *Hydnobius spinipes* (RDB– K), *Leiodes picea* (RDB – K), *Leptusa norvegica* (Notable), *Miscodera arctica* (Notable B), *Omalium laticolle* (Notable), *Phyloodrepoidea crenata* (Notable B). **Diptera**: *Eristalis rupium* (Notable). **Lepidoptera**: *Epirrita filigrammaria* (Notable B), *Lithomoia solidaginis* (Notable B).	*				
Upland mosaic		N/A	Population of dragonfly: golden-ringed dragonfly *Cordulegaster boltonii.*	N/A	*				
Geological Features				N/A					
River and stream sections (EW)	River and stream sections (EW)	N/A	Blackden Brook GCR 328. (Namurian of England and Wales GCR10D). Units 198 & 202.	Exposures in the stream bed display much of the UK sequence of Upper Carboniferous sediments, which record a complex period of ancient river delta formation. These deposits can be split into 4 main units: Kinder Grit; Grindslow Shales; Shale Grit; and the Mam Tor Flagstone Beds. The river sediments were probably sourced from the ancient Caledonian Continent to the north.	*				
Inland outcrops (EO)	Inland outcrops (EO)	N/A	Alport Castles GCR 327. (Namurian of England and Wales GCR10D). Unit 150.	This site complements the sediment sequence exposed at the Blackden Brook site (see below), revealing good examples of the Shale Grit series within the exposed rock faces above 420 metres altitude.	*				

BAP Broad Habitat type / Geological Site Type	Specific designated features				SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats		
	CSM reportable feature	**Annex 1 habitat** (with Natura 2000 code)	**Notified feature**	**Feature variants typical of the Dark Peak SSSI** (if applicable)			**Annex 1 species**	**Migratory species**	**Waterfowl assemblage**
Finite buried interest (FB)	Finite buried interest (FB)	N/A	Featherbed Moss GCR 1911. (Quaternary of the Pennines GCR15I). Unit 191.	Peat deposits provide a record of local and regional changes to vegetation and climate for a significant portion of the Flandrian (current post-glacial) period (*c.* 12,000 years). The site also contains all the peat erosion types now recognised in the southern Pennines. Research has identified two periods of active erosion: c. 900 AD, and post 1800 AD.	*				
Static (fossil) geomorphological (IS)	Static (fossil) geomorphological (IS)	N/A	Featherbed Moss GCR 1911. (Quaternary of the Pennines GCR15I). Unit 191.	The peat deposits also illustrate the depositional processes that have given rise to this feature over recent millennia.					
Active process geomorphological (IA)	Active process geomorphological (IA)	N/A	Alport Valley GCR 2861. (Fluvial Geomorphology of England GCR1B). Unit 182.	Illustrates a diverse range of fluvial features typical of solid bedrock geology, such as paired meander terraces, water chutes, cascades, waterfalls, and channel meanders within a small floodplain.	*				
Active process geomorphological (IA)	Active process geomorphological (IA)	N/A	Alport Castles GCR 802. (Mass Movement GCR1A). Unit 150.	The largest magnitude inland mass-movement site in England. Contains several examples of landforms caused by block movement and slump-sliding which has affected the whole valley side, with a resultant landscape of rocky towers and ridges, and massive flat-topped sandstone mass.	*				
Active process geomorphological (IA)	Active process geomorphological (IA)	N/A	Bleaklow GCR 2859 (Bull Clough Head, Howden Moors). Fluvial Geomorphology of England (GCR 1B). Units 88 / 89 & 126.	Provides a good example of river capture on peatland sediments. The Derwent system to the south appears to have captured some of the headwater tributaries of the Little Don system to the north.	*				

Notes

1) Features where asterisks are in brackets (*) indicate habitats which are not notified for specific habitat interest (under the relevant designation) but because they support notified species.
2) The requirements of species (including SPA bird species) are reflected in the Conservation Objectives for habitat features on which they depend. In some specific situations, direct population measures for species may also be used to provide supporting information to confirm habitat quality measures.
3) ** indicates species qualifies under the SPA Review but has not formally been designated through a change to the SPA citation.
4) This variant is not considered to be SSSI designated interest features because examples are of such low quality that they should be seen purely as bird habitat or site fabric.
5) At present it is unclear whether there are any species-rich variants of U5 or U6 grassland. Following further Condition Assessments it may be possible to say with certainty that there are no diverse examples of these communities, in which case these features can be removed from this list.

Audit Trail

Rationale for additional feature column: 'Feature variants typical of the Dark Peak SSSI'

Many notified features in the Dark Peak SSSI are listed as NVC communities; however there are a considerable number of species-poor and species-rich variations from these communities. The different variants often require distinct management in order to maintain their condition or bring them into recovering condition. This requires the recognition of all variants, and in some cases alterations to the standard CSM.

Many of the blanket mires of the Dark Peak are overwhelmingly dominated by *Eriophorum vaginatum*, probably as a result of frequent burning and heavy grazing in the past, and these fit clearly within the M20 blanket mire community. The occurrence of the M19b blanket mire community is restricted to very small fragments occupying a few core wet areas on un-eroded plateau summits. However, there are large expanses of seasonally wet blanket mire that do not fit clearly into either category: these are very species-poor and are broadly dominated by a mixture of E. *vaginatum* and *Calluna vulgaris*, with few other species. While this type of vegetation could perhaps be subsumed within the M20 blanket mire, management of these two types of blanket bog may be quite different, and hence it is considered important to keep them as distinct categories. Accordingly, this intermediate type of blanket mire has been described as M19b/M20 blanket mire.

Rationale for omitting certain notified features

The woodland community W17 - *Quercus petraea - Betula pubescens - Dicranum majus* woodland has been omitted because it appears likely that examples in the Dark Peak are better assigned to W16b *Quercus* spp. – *Betula* spp. – *Deschampsia flexuosa* woodland, *Vaccinium myrtillus – Dryopteris dilatata* sub-community (Anderson 1992). The reasoning behind this is that W17 appears to be a community of significantly wetter western and northern parts of the UK, and it also typically has a much more luxuriant bryophyte flora than woodlands of the south Pennines. The few examples of bryophyte-rich woodlands identified by Smedley (1992) fit better within the W16b sub-community than the W17 community. Rodwell (1991) notes that W16b is typically quite moist, leading to the development of a fairly well-developed bryophyte flora, although this is often offset in the southern Pennines by atmospheric pollution.

H18 *Vaccinium myrtillus – Deschampsia flexuosa* heath has been omitted despite being a notified feature, as it is unlikely to be found in the Dark Peak. It is noted as being present by Smedley (1992), however, it is typically a community of northern and western Britain at higher altitudes. Anderson's (1992) critique of Smedley's survey suggests that these examples are more likely to be forms of H12 or H9 heaths that have been degraded by burning and grazing.

H12 *Calluna vulgaris – Vaccinium myrtillus* heath has been omitted because it is not listed on the criteria nor is it a notable Site Objective Statement feature, although it is listed in the SOS notes. It was identified during Smedley's 1992 survey but he queries whether it is simply the H9a sub-community. Anderson (1992) suggests that Smedley's proposed H18 community is more likely to be H9 or H12, but also discusses the fact that H9 heathlands are a polluted derivative of H12. Furthermore, Rodwell (1991) states that impoverished stands of *Calluna* and the Vaccinia in the severely polluted southern Pennines should be best placed in the H9 heathland community.

H8 *Calluna vulgaris – Ulex gallii* heath has been omitted despite being a notified feature because it is generally a community of drier lowland maritime areas, and is limited to the moorland fringe areas in the Peak District. Its inclusion is probably based on the survey by Smedley (1992), which in some cases takes in fringing areas that did not make it into the SSSI. As a consequence, it is likely that most occurrences of the community are beyond the SSSI boundary. While there may be a few instances where small stands are located just within the Dark Peak SSSI, these are likely to be fragmentary and very small in extent, and as such are not considered to demand their own conservation objectives.

Although the two wet heathland NVC communities (M15 & M16) have been listed as features of the Dark Peak SSSI, and examples in different units have been ascribed to both communities, they are not separated here. Most Dark Peak examples appear to be moderately or heavily degraded, probably by a combination of past burning and heavy grazing, and as a consequence their flora is very impoverished, many sites being almost totally dominated by *Molinia caerulea*. Thus there appears to be little to distinguish clearly between one community and another. Furthermore, their geographical location appears to be somewhat intermediate between the drier eastern and southern lowland M16 samples, and the wetter northern and western M15 samples at moderate altitudes, described in Rodwell (1991).

Many examples of M25 *Molinia*-dominated mire grassland on sloping organic soils have probably been

placed in this community solely on the basis of dominance by *Molinia*, and it is possible that a large proportion of these could be better described as wet heath that has been degraded by grazing and / or burning in the past (see above). However, it seems unlikely that this is always the case. In addition, 'true' M25 is generally accepted to have been derived from other related habitats by management, in many situations (Averis *et al.*). Consequently it appears sensible to retain this community as a feature in its own right, and to note in the field any instances where moderately diverse stands of *Molinia* vegetation occur, as these may well be more realistic examples of this community.

M29 *Hypericum elodes – Potamogeton polygonifolius* soakway has been omitted despite being a notified feature, as it is unlikely to be found in the Dark Peak. It is noted as being present by Smedley (1992), and Anderson's (1992) critique of Smedley's survey implies that there could be a degraded form of this community in the Dark Peak. However, it is typically a community of southern and western Britain at moderate altitudes. Discussions with Richard Pollitt and Ros Tratt have tentatively concluded that this community may have been mistaken for forms of M32 or M35.

Neutral grassland (MG5) is listed as a Dark Peak SSSI feature, and is described by Smedley (1992) from 2 sites, one at Clough Farm in the Edale Valley, the other on the east bank of Ladybower Reservoir south of Mill Brook. However, on closer examination these appear to lie just outside the SSSI boundary. The Phase 1 habitat map shows two neutral grassland sites 2 km south of Glossop, but again they lie just outside the SSSI boundary. The ESA map for the Dark Peak shows a number of 'semi-improved neutral rough pasture' sites, but again they lie beyond the SSSI boundary. As a consequence this feature has been omitted from these conservation objectives.

Rationale regarding individual populations & assemblages

The following species are listed on the SSSI citation as 'declining species and species at edge of their range', and are listed as notified features, but do not actually qualify as part of a 'vascular plant assemblage'. However, they are considered to be important features of interest, and as such are deserving of some form of conservation objective:

- oak fern *Gymnocarpium dryoptis*;
- beech fern *Phegopteris connectilis*;
- cloudberry *Rubus chamaemorus*;
- bearberry *Arctostaphyllos uva-ursi*;
- round-leaved sundew *Drosera rotundifolia*;
- lesser skullcap *Scutellaria minor*;
- ivy leaved bellflower *Wahlenbergia hederacea*.

In addition there are three other species of some importance that are either not mentioned on the citation, or are mentioned but are not notified features:

- bog rosemary *Andromeda polifolia*;
- Labrador tea *Ledum palustre* ssp. *groenlandicum* (there is some confusion as to its status: it is included on the citation as nationally rare, and is included on the RDB list in the Guidelines, but not in 3rd edition of the RDB or on JNCC web lists. The Derbyshire Flora checklist identifies it as a Derbyshire RDB and Local BAP species. However, it is treated as an introduced species in the New Atlas of the British Flora);
- Killarney fern *Trichomanes speciosum*, sporophyte form (Schedule 8 plant). The Site Objective Statement states that it has been recorded in the South Pennines, while a note on the scientific file dated 24-10-91 indicates that it does occur at sites within the Dark Peak SSSI but as gametophyte population only. It is not mentioned even indirectly on the citation, therefore it would need renotification if we are notifiying sites with the gametophyte. Further evaluation is needed to properly assess the status of this species within the SSSI.

An earlier Site Objective Statement (Thomas R. 1994) states an assemblage of saxicolous lichen species (10 nationally scarce species) as a post-notification feature (includes species list). All remain nationally scarce (see JNCC website), although four have changed their names; the current names are listed. Sources of the records are: Hawksworth (1974) for ??, ?? & ??; Thomas ?? for the remainder. These ten species add up to a total of 300 points (needs 200 to qualify). There is no direct reference on the citation therefore it would need renotification, but if confirmed they would qualify the site.

Although water voles do not qualify because they are not on the SSSI citation, they are an important and interesting upland species that requires conservation effort to maintain or enhance their upland populations.

Bird assemblage of upland moorland & grassland with water bodies: total site index at time of notification = 40.5. The species present at notification and at each monitoring event do not need to be the same as this is a score-based assessment only, i.e. changes could be allowed as long as the site index does not change significantly. If the total score calculated for a breeding bird assemblage falls by the equivalent of 25% or more in points then the assemblage is in unfavourable condition.

References:

Hawksworth D.L. (1974). *Report on the lichen flora of the Peak District National Park with emphasis on SSSIs*. NCC Midland Region.

JNCC website: http://www.jncc.gov.uk/

Thomas R. (??). ??

Other Notes

There may be some evidence that wet Calluna-dominated blanket bog may not be actively peat-forming if it is regularly burned (Garnett *et al.* (2000).)

Only a certain proportion of bracken stands need to be retained, while the majority could be subject to some form of restoration – this should evolve through Management Plans.

Acid grassland with a suppressed dwarf shrub element should be considered in the context of dry heathland as long as the dwarf shrubs are sufficiently frequent to facilitate heathland recovery if management conditions were suitable (e.g. grazing removed).

Although the boundaries of many of these features have been captured on GIS at a broad scale, there is incomplete knowledge about the distribution and boundaries of smaller and more scattered features, such as areas of diverse M19 blanket mire, areas rich in M3 bog pools, diverse M15 / M16 wet heaths, species-rich M6 mires and M23 rush pastures, and M32, M35 and M37 springs, rills and flushes. As a consequence, it is important to emphasize to all staff and contractors carrying out site visits and condition assessments that these visits should be used as opportunities to demarcate any examples of the above features that are encountered, to enable the capture of these details onto GIS. Accurately mapped boundaries of these features are essential, for example if they are to be removed from a burning regime.

References:

Anderson, P. (1992?). *Comments on Mike Smedley's report for the NVC maps of the Dark Peak SSSI*. Unpublished report for English Nature.

Averis A, Averis B, Birks J., Horsfield D., Thompson D. & Yeo M. (2004). *An illustrated guide to British upland vegetation*. JNCC, Peterborough.

Garnett M.H., Ineson P. & Stevenson A.C. (2000). Effects of burning and grazing on carbon sequestration in Pennine blanket bog, UK. *The Holocene* **10 (6)**, 729-736.

Rodwell J.S. (1991 *et seq.*). *British Plant Communities Volumes 1-5*. Cambridge University Press, Cambridge.

Smedley, M. (1992). *The vegetation of the Dark Peak Moorlands pSSSI:with reference to the NVC*. Unpublished survey report for English Nature.