

Section A

Conservation Management Plan

**UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006**

UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006

CONTENTS

1. INTRODUCTION.....	4
1.1 Background.....	4
1.2 The Project Area.....	4
1.3 Partnership and land management.....	4
2. POLICY CONTEXT AND LEGISLATIVE BACKGROUND.....	5
2.1 Introduction.....	5
2.2 Forestry Policy.....	5
2.3 Biodiversity Policy.....	8
2.6 National Trust Forestry and Woodland Policy.....	10
2.7 Wildlife and Countryside Act 1981 (As Amended).....	12
3. SITE ASSESSMENT.....	14
3.1 Significance of the Site.....	14
3.2 Biodiversity.....	15
3.3 Landscape Character.....	28
3.4 Heritage Audit.....	29
3.5 Vulnerability Assessment.....	29
4. CONSERVATION MANAGEMENT PLAN – THE VISION.....	34
4.1 Upper Derwent Valley Woodlands – A Vision Statement.....	34
4.2 Aims and Objectives.....	34
4.3 Current Woodland Management Plans in the Upper Derwent.....	34
5. DESIGN PRINCIPLES.....	34
5.2 The National Trust Long term Vision for Woodland.....	34
5.3 The Alport Valley.....	34
5.4 Upper Snake Woodlands.....	34
5.5 West End and Lockerbrook.....	34
5.6 The Upper Derwent Valley Woods – Severn Trent Water (STW) Woodlands..	34
5.7 Boundaries, Edges and Open Space.....	34
5.8 Invasive Species.....	34
5.9 Scarce and Protected Species.....	34
6. MANAGEMENT PROPOSALS AND PROJECTS.....	34
6.1 Conservation Management Proposals.....	34

MAPS

- Map 1: Land Ownership
- Map 2: Conservation Designations
- Map 3: Existing Woodland Habitats
- Map 4: Vision Map
- Map 5: Design Concept
- Map 6: New Native Woodlands
- Map 7: Felling Proposals

AADP

- Map 1: Access Improvements – Proposed routes

1. INTRODUCTION

1.1 Partnership and land management

- 1.1.1 The Upper Derwent Valley Partnership brings together three major landowners and woodland managers – the National Trust, the Forestry Commission and Severn Trent Water. This Plan represents the joint efforts of these three agencies, together with the Peak District National Park, to develop a common management approach to conserving and enhancing the important wooded landscape of the Upper Derwent.
- 1.1.2 These agencies have been active members of a long-standing Partnership dedicated to the conservation and management of the Upper Derwent Landscape for over 25 years. In that time, each agency has continued its own contribution to the management of the area, including extensive ecological and archaeological surveys, forest/woodland management and a joint Ranger service operated in partnership between Severn Trent Water and the National Park. The extensive efforts of these agencies - to diversify species and improve the shape of existing forest and woodland, along with new tree planting to improve the landscape and nature conservation interest – has been recognised through awards such as Forest Stewardship Certification (FSC).
- 1.1.3 The three landowners have consulted each other closely whilst developing their own forest/woodland management plans for the area. However, until now, there has been no integrated approach to planning the future of the valley's wooded landscape. This Plan seeks to address that gap and to draw together the existing plans prepared by each of the agencies. In addition, however, the Plan seeks opportunities to integrate further enhancements to existing woodland plans, by incorporating additional recommendations to improve the conservation and management of the valley's biodiversity and cultural heritage.

2. POLICY CONTEXT AND LEGISLATIVE BACKGROUND

2.1 Introduction

- 2.1.1 Forest and woodland management in the UK is the subject of extensive policy and guidance, developed over many years by a number of agencies, including the Forestry Commission, English Nature and others. Land management in general is also the subject of policy in relation to biodiversity and heritage conservation, with policy and guidance developed by government agencies such as English Nature and English Heritage, National Parks and local authorities, in partnership with a wide range of other organisations in the voluntary and private commercial sectors. Many other agencies, including the Forestry Commission, Severn Trent Water and the National Trust, have developed their own plans for biodiversity action and conservation.
- 2.1.2 Much of this policy is set against a wider, international background of policy on environmental sustainability. At the 1992 United Nations' Conference on Environment and Development in Rio de Janeiro (The Earth Summit), world leaders subscribed to a commitment to sustainable development. The Conference adopted a number of commitments and relevant agreements, including a Statement of Forest Principles, Agenda 21, the Biodiversity Convention, and a Framework Convention on Climate Change.
- 2.1.3 At the Helsinki Ministerial Conference in June 1993, European governments built on the Rio Forest Principles by adopting a set of guidelines for the sustainable management of European forests and for the conservation of their biodiversity.
- 2.1.4 In the mid 1990s, the UK responded to these international commitments by publishing a range of UK wide strategies, including *Sustainable forestry – the UK programme*; *Sustainable development – the UK strategy*; *Biodiversity – the UK action plan*; and *Climate change – the UK programme*.
- 2.1.5 The following sections describe the background policy which guides the preparation and implementation of this Conservation Management Plan.

2.2 Forestry Policy

UK Forestry Standard

- 2.2.1 As a result of these undertakings, the UK government formally adopted a forestry policy for sustainability, by promoting:
- the sustainable management of our existing woods and forests; and
 - a steady expansion of tree cover to increase the many diverse benefits that forests provide.
- 2.2.2 Taking forward the commitments from these international agreements and strategies, the *UK Forestry Standard* was first published in 1998 and updated in 2004, to set out standards for the sustainable management of all forests and woodlands in the UK.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

The UK Forestry Standard is supported and implemented through a number of instruments including the forestry/woodland grant schemes, Forest Plans, Forest Design Plans, Felling Licence regulations and Environmental Impact Assessment regulations.

- 2.2.3 The Standard lays out criteria for sustainable forest management, including requirements for:
- Soil conservation
 - Water quality
 - Carbon sequestration
 - Timber production
 - Biodiversity
 - Agricultural resource protection
 - Heritage Conservation
 - Landscape quality
 - Opportunities for rural development; access and recreation; quality of life; increased awareness and participation; community involvement; and skills training.
- 2.2.4 The Standard also describes good forestry practice and includes a range of Standard Notes providing detailed guidance on good forestry practice.

England Forestry Strategy: A new focus for England's woodlands

- 2.2.5 The England Forestry Strategy: A new focus for England's woodlands sets out the Government's strategic priorities and programmes for forestry. It describes how the existing heritage of trees, woods and forests in England should be managed and promotes the creation of new woodlands.
- 2.2.6 This forestry strategy is based on four key programmes.
- Forestry for Rural Development;
 - Forestry for Economic Regeneration;
 - Forestry for Recreation, Access and Tourism; and
 - Forestry for the Environment and Conservation
- 2.2.7 Forestry for the Environment and Conservation lays out the policy approach to protecting existing woodlands promoting the environmental benefits of trees and woodlands. Of particular relevance for this Plan, this section of the Forestry Strategy also provides the following strategic action points:
- **Use the Biodiversity Action Plan to guide nature conservation** - in particular, to target grants through the Woodland Grant Scheme to reverse the fragmentation of existing native woodlands, conserve priority species, and help with the preparation of management plans for semi-natural woods.
 - **Protect Cultural Heritage** – by working with archaeological authorities and others to identify sites of historical importance, to make sure that proposals for new planting that might affect such sites are evaluated.

Forestry Commission Statement of Policy for England's Ancient & Native Woodland

2.2.8 In its published statement *Keepers of time: A statement of policy for England's Ancient and Native Woodland*, the Forestry Commission has adopted the following "2020 Vision":

Ancient woodlands, veteran trees and other native woodlands are adequately protected, sustainably managed in a wider landscape context, and are providing a wide range of social, environmental and economic benefits to society.

2.2.9 To achieve this vision, the following policy statements are outlined:

- The existing area of ancient woodland should be maintained and there should be a net increase in the area of native woodland;
- The ecological condition of ancient and native woodland should be improved and maintained;
- Rare, threatened or Priority species associated with ancient and native woodland should be conserved and enhanced;
- The cultural heritage associated with ancient woodland and veteran trees should be protected and conserved;
- The landscape context of woodland should be improved.

2.2.10 The Policy Statement particularly emphasises the management of woodlands at a landscape scale, in recognition of the fact that wildlife occupies and uses the landscape as a whole and that the potential impacts of climate change will necessitate a re-connection of the semi-natural components of our landscapes into ecologically functional units. Woodlands and trees provide some of the most important features of such habitat networks.

2.2.11 The Policy is explicit in supporting woodland creation to increase the area of semi-natural habitats available to wildlife; to enhance woodland margins and to re-establish more natural transitions and buffers between woodland perimeters and surrounding land uses.

2.2.12 Forestry Commission policy is further developed in detailed Practice Guidance Notes, including guidance specifically on Upland Oak and Birch Woods and Wet Woodlands. The Notes provide detailed guidance on appropriate silvicultural systems, harvesting, thinning, methods of regeneration and restocking and a range of maintenance and other issues

Regional Forestry Strategy Consultation July 2005

2.2.13 *Space4Trees* is the East Midlands Regional Forestry Strategy. It builds on the commitments to biodiversity, heritage conservation and sustainability of the national policy framework. Its specified aims for Trees and the Environment include:

- To protect, enhance and extend existing ancient and native woodlands,
- restore planted ancient woodland sites and
- support the creation and management of new native woodlands which

- deliver regional and national targets for biodiversity, reflect and enhance local character and contribute to a rich, diverse and attractive environment and cultural heritage.

2.2.14 The strategy's key objectives for Trees and the Environment are stated as:

- Priority species and habitats brought into good ecological condition
- Ancient woodlands, ancient woodland features and woodlands on ancient woodland sites protected, enhanced and well managed
- The wider environment enhanced by a landscape scale approach to woodland creation and management
- The issues and opportunities for trees and woodlands in response to external environmental pressure more widely understood and acted upon.

2.2.15 Like the national policy, this emphasises the importance of landscape-scale approaches to woodland management and heritage conservation for biodiversity and the cultural environment.

2.2.16 More specifically, the strategy exemplifies its policy stance through particular actions which should be taken to deliver these key objectives, including:

- Deliver BAP targets for priority woodland habitats and species
- Ancient semi natural woodlands / clusters prioritised and targeted for habitat restoration and management
- Planted Ancient Woodland Sites returned to native woodlands and associated habitats
- Veteran / ancient trees identified and appropriately protected
- Restructuring of existing (recent) woodlands to deliver net environmental gains, in particular the re-creation of other national priority habitats.

2.3 Biodiversity Policy

UK Biodiversity Action Plan

2.3.1 Following the Earth Summit in Rio de Janeiro in 1991, the central thrust of Central government Policy on nature conservation has been developed in *Biodiversity: The UK Action Plan* (HMSO 1994) The overarching aim for biodiversity is stated as:

“To conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity through all appropriate mechanisms.”

2.4 The UK Biodiversity Steering Group, in a series of Habitat and Species Action Plans (HMSO 1995 *et seq*), has laid out the national priorities for biodiversity action. The UK Biodiversity Steering Group identified 45 key habitats in need of protection in the British Isles. In the Upper Derwent, the most relevant of these are action plans for Priority Habitats:

- **Upland Oakwood (priority habitat).**
- **Wet Woodland (priority habitat).**

Peak District Biodiversity Action Plan (PDBAP)

2.5 The Peak District Biodiversity Action Plan has been prepared by the Peak District National Park, in partnership with other public, voluntary and private sector agencies. It provides a local focus for biodiversity policy and includes a range of habitat and species action plans targeting resources of particular note within the National Park and following national priorities laid out in the UK BAP. The Plan establishes targets for relevant Priority Habitats and Species in the Peak District. Those of particular relevance for this Plan include:

- **Upland Oak/Birchwoods**
- **Wet Woodlands**
- **Veteran Trees in the Wider Countryside**

2.5.1 The Plan explicitly promotes more favourable management of oak/birch woodland, with an emphasis on restoration or woodland re-creation in cloughs and on valley sides in appropriate locations. It encourages the development of transition woodland habitats on the upper valley slopes, through grazed woodland and scrub to open moorland.

2.5.2 It specifically identifies the need for restructuring of plantations to offer further opportunities for oak/ birchwood creation, with a priority for ancient woodland sites and those with relict ancient woodland species.

2.5.3 Wet woodland also forms an important component within the woods of the Upper Derwent and elsewhere in the BAP area and the BAP promotes opportunities for creation or restoration of more extensive wet woodland in river valleys. The Plan promotes the conservation and encouragement of old veteran trees and dead wood habitats wherever they occur in woodlands, parkland and along field boundaries.

2.5.4 In relation to these resources, the PDBAP expresses a series of objectives and targets. The targets were most recently updated in 2005 and can be summarised in the following way.

<i>Peak District BAP Habitat Targets Relevant to the UDV</i>
<i>Oak/Birch Woods and Wet Woodlands</i>
Objective 1 Maintain extent of upland oak/birchwoods and wet woodlands and bring all existing ancient semi-natural woodland into favourable condition. <ul style="list-style-type: none">• Initiate measures by 2010 to bring 70% of oak/birchwoods on the Ancient Woodland Inventory (AWI) into favourable condition, 100% by 2015.• Initiate measures by 2010 to bring 100% of wet woods within SSSIs and SACs into favourable condition by 2005 and 95% of all ancient semi-natural wet woodlands.
Objective 2 Bring priority examples of non-ancient semi-natural oak/birchwoods and wet woodlands into favourable management. <ul style="list-style-type: none">• Introduce appropriate management regimes by 2010 to bring 70% of oak/birchwoods which are not on the AWI into favourable condition.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

<ul style="list-style-type: none">• Introduce appropriate management regimes by 2010 to bring approximately 25 ha of secondary wet woodland into favourable management, focusing on linear routes.
Objective 3 Convert Plantations on Ancient Woodland sites (PAWS) back to oak/birchwoods and wet woodlands where this is a priority. <ul style="list-style-type: none">• Initiate measures by 2010 to restore 70% of relevant PAWS to restore site-native species over appropriate time spans.
Objective 4 Reverse woodland defragmentation by creation of new woodland, particularly by natural regeneration. Prioritise the extension/linking of existing ancient woodlands and relic clough woodland. Prioritise river valleys for wet woodland expansion. <ul style="list-style-type: none">• Initiate measures by 2010 to create 400 ha of new oak/birchwood, including at least 100 ha of clough woodland in relict sites adjacent to existing ancient woodland, following current best practice.• Create 30 ha of new wet woodland in two stages of 50 % by 2010 and 100 % by 2020.
<i>Veteran Trees in the Wider Countryside</i>
Objective 4 Protect and maintain the current extent and distribution of veteran trees in the wider countryside. <ul style="list-style-type: none">• Initiate measures by 2005 to achieve favourable condition of 20 % of known veteran trees.• Initiate the establishment of sensitive management of approximately 20% of veteran trees by 2010.
Objective 5 Plan to expand the veteran tree resource and connect groups of veteran trees by the establishment of habitat corridors. <ul style="list-style-type: none">• Agree an annual target for securing a commitment to retain individual trees or groups of trees as veterans in the long term.• Initiate the establishment of corridors connecting 20 % of groups of veteran trees by 2010.

2.6 National Trust Forestry and Woodland Policy

2.6.1 The National Trust is a key partner for the delivery of Biodiversity Action Plan objectives, at both national and local levels. It also has a statement of its own policy on forestry and woodland management. In its national policy statement, *Woodland Management in the National Trust*, the Trust expresses its commitment to people and wildlife, in the following terms:

“In all woodlands our aim is to maximise their value to people and to wildlife, now and for the future. We also aim to support local economic development and to contribute to the sustainable production of timber and other forest products.”

2.6.2 The Trust’s commitment to sustainable woodland management emphasises the need to take account of the economic, social, environmental and cultural importance of woods. More locally, in its High Peak Estate, timber production is not considered to be

an objective for woodland management. Here, the emphasis is on the environmental benefits of woodland conservation and management.

- 2.6.3 Since the early 1990s the Trust has adopted a less interventionist approach to woodland management, relying on natural tree regeneration rather than planting. Considerable effort is expended on maintenance, however, and appropriate management to improve woodland habitat diversity.
- 2.6.4 More intensive woodland management is considered appropriate where natural processes will not result in or sustain semi-natural woodland. Plantations require management, whether it is to improve the quality of the timber or to enhance the natural vegetation by the gradual removal of conifers. The Trust recognises the economic and aesthetic arguments for producing fine timber. However, at the local level of the Trust's High Peak Estate, biodiversity and other environmental objectives are considered to be the primary objectives for woodland management.
- 2.6.5 The policy also emphasises the importance of veteran trees and dead wood.

Severn Trent Water BAP

- 2.6.6 Severn Trent Water began developing its own BAP in 1998, launching the final document in July the following year. The BAP outlined the way in which the company would contribute to the delivery of the UK Action Plan and contained time targeted actions and commitments covering the period January 1999 to April 2004.
- 2.6.7 The BAP identified 11 UK key habitats and 18 UK priority species in need of protection and enhancement for which STW could make a significant contribution. Action Plans and targets were produced for each of these. Plans and objectives for Upland Oak Woodland and Wet Woodlands, relevant to the UDV include:
- *Identify the location, quality, area and importance of sites;*
 - *All STW owned woodlands to have management plans that are being implemented, by 2003.*
 - *Identify opportunities for a 10% increase in the area of our existing Upland Oakwood either through expansion or restoration by 2003*
 - *Identify and pursue partnership opportunities for the expansion of the oak woods.*

Peak District National Park Authority

- 2.6.8 As a national park, PDNPA is a "single-purpose authority" within local government. The statutory purposes of national parks are defined in the 1995 Environment Act as:
- *to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park*
 - *to promote opportunities for public enjoyment and understanding of the National Park's special qualities*
 - *National Parks also have a statutory duty:
to foster the economic and social well-being of local communities*

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 2.6.9 All National Parks follow the guidance that in any direct clash between conservation and recreational access, conservation considerations must prevail (resulting from the National Parks review chaired by Lord Sandford in 1971-74 and dubbed “the Sandford principle”).
- 2.6.10 The Peak District is host to upland oak and ash wood habitats and features which are of national and international significance. As in the Upper Derwent, many of the Park’s woodlands are of major recreational importance and also serve other important functions such as water catchment protection.
- 2.6.11 The Park Authority has a long track record of working with the land owning community and others, as well as being a significant owner/manager of woodland. Projects such as the Ash Woodland initiative and the New Native Woodlands Challenge Fund have been successful in focusing on the need to both conserve and buffer/extend/link important ancient woodland sites. Work is underway in the Peak District to develop a GIS based database to support the identification of ancient woodland management priorities at a landscape scale.
- 2.6.12 The management of woodlands in the Upper Derwent presents opportunities to make significant contributions to the objectives of the Peak District BAP. In particular, the Upper Derwent project will provide opportunities for the restoration of ancient woodland habitats and the extension of native woodland cover on the upland fringes of the Park.
- 2.6.13 The Park has contributed extensively to the past and current management of woodlands in the Upper Derwent. Most recently it has undertaken extensive surveys of the ecological and cultural heritage interests of the valley and provided strategic and site-specific management recommendations to meet Biodiversity Action Plan targets.

2.7 Wildlife and Countryside Act 1981 (As Amended)

- 2.7.1 The Wildlife and Countryside Act 1981 provides for the protection of the nation’s most important habitats and species. The Act allows for the designation of National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs), to protect areas containing habitats and species of national or international importance. All Special Protection Areas (SPAs) and Special Areas for Conservation (SACs) identified under EU Directives are also SSSIs.
- 2.7.2 The Upper Derwent Valley Project Area includes extensive moorland and upland fringe habitats, designated as SSSI, SAC and SPA. These designated sites do not include much of the main valley or its woodlands but the woodlands border the designated habitats throughout the valley. Management of the woodlands at the interface with these important habitats must take full account of the SSSI/SAC habitats and SPA bird interests.
- 2.7.3 The 1981 Act was amended by the Countryside and Rights of Way Act 2000, in particular to provide increased protection for designated sites. The CRoW Act 2000

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

also lays special responsibilities upon so-called Section 28G authorities, including local authorities and statutory undertakers, in relation to such designated sites.

- 2.7.4 The 1981 Act also provides for the protection of certain species. These include a number of specially protected birds (listed in Schedule 1). Other animals are listed in Schedule 5 and a number of plant species under Schedule 8. In the Upper Derwent, species specially protected under the Act include a population of Goshawk and small numbers of breeding Peregrine falcon. Red squirrel, last recorded in the early 1990s in the Upper Derwent, is also protected under Schedule 5 of the Act but is probably now extinct.

3. SITE ASSESSMENT

3.1 Significance of the Site

Designations

- 3.1.1 The Upper Derwent Valley is of exceptional landscape, wildlife and cultural significance within the Peak District National Park and the Dark Peak Natural Area¹.
- 3.1.2 The upper valley slopes and open moorland plateau lie within the Dark Peak Site of Special Scientific Interest and the South Pennine Moors Special Protection Area for Birds. It is also a Special Area for Conservation. These have been designated by English Nature to protect the area's natural interest: its assemblage of breeding birds, the variety of semi-natural upland habitats and for features of geological and geomorphological interest. Alport Castles, is a classic example of a rotational landslip. The Upper Derwent also lies within the North Peak Environmentally Sensitive Area (ESA).

Landscape

- 3.1.3 The landscape of the Upper Derwent is both dramatic and beautiful. The valley, with its steep valley sides and open reservoirs, forms a deep valley system, cutting into the surrounding moorland plateau and an extensive open wooded valley of high visual appeal. Much of the valley is dominated by conifer woodland and some areas of broadleaved woodland, in contrast to the small fields of inbye land with occasional field barns and small settlements. The fields are enclosed variously by hedges or dry stone walls. The area includes examples of naturally functioning, meandering river systems. The upper valley slopes and associated edges provide breathtaking panoramic views, including the surrounding Derwent Moors, the Bleaklow-Kinder plateau, and the Hope Valley and White Peak to the south, as well as the Derwent, Woodlands and Alport Valleys themselves.

Wildlife

- 3.1.4 The Upper Derwent valley contains a number of important habitats and locally uncommon species. The Upper Derwent Ecological Survey (1986-1988) highlighted the importance of this diversity, rather than the presence of any individual rare species. Habitats range from bilberry heath and acid grassland to rich flushes and ancient semi-natural woodlands. Extensive plantation woodlands support relict ancient woodland flora and important breeding birds such as goshawk. The upper fringes of woodland/moorland habitat are of importance to recently re-introduced black grouse.

¹ *Natural Areas* is a concept adopted and promoted by English Nature to describe the local distinctiveness of each part of England and its characteristic wildlife and natural features. The Dark Peak Natural Area is defined as the upland moorland area and surrounding enclosed farmland between Manchester, Huddersfield and Sheffield and falls largely within the Peak National Park.

Rivers and upland streams provide important aquatic habitats and associated floodplains and open cloughs, which support many wild flowers, such as the common spotted and marsh orchids, amphibians, insects, and birds such as the common sandpiper. A very high diversity of invertebrates and fungi have been identified in the Alport Valley. In addition to goshawk, the woodlands and surrounding valleys support sparrowhawk, merlin, peregrine falcon and long-eared owl.

Cultural History

- 3.1.5 The landscape is also rich in cultural history with many interesting archaeological sites. The planting of conifers and the advent of the reservoirs in the valley bottoms, have brought significant change in the character of the landscape in the last 100 years. Elsewhere, elements of the historic landscape structure have changed much less, with a network of walls which is thought to date back in places to the 16th century and has been little altered. The old sled runs, down which peat was brought from the high moors, are still visible through the plantations. Boundary lynchets, hedges, a packhorse route, hollow-ways, dry stone walls, old pollarded alders, and previously ploughed fields all tell of the rural past.

3.2 Biodiversity

Introduction

- 3.2.1 The project area is dominated by the presence of the reservoirs, areas of dense commercial forestry and the presence of broad expanses of moorland vegetation on the surrounding plateaux. The transitions between these landscape types is often harsh and in general native woodland is not a particularly visual component of the landscape but together the habitats in these areas are a stronghold to a wide range of plants and animals and are of international, national and regional importance to a huge range of animal and plant species.
- 3.2.2 In particular the valley has had a long history of changeable woodland cover and has a high concentration of Ancient woodland sites compared to a typical area of the Dark Peak. Some of these Ancient woodland sites have a long history of conversion to coniferous cover with several having already been converted to conifers by the 1870's. Many of the remaining Ancient woodland sites were converted to conifers during the creation of the large expanses of continuous plantations seen today. However, there is still significant interest associated with these ancient woodland sites.
- 3.2.3 Although much of the valley has been planted with commercial conifers, which are not generally associated with high values for conservation, the maturing conifer stands have developed areas of interest in their own right, principally for their avian fauna, where current mature conifer stands may be selected as nesting sites by notable species such as goshawk.
- 3.2.4 Broadleaved plantations are also a feature of the valleys although not as obvious as the coniferous areas and these tend to predominate in the cloughs and on the valley sides of the northern areas either side of the Howden reservoir.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 3.2.5 Broadleaves are also evident in many places within the conifer plantations, both planted and with some remaining semi-natural cover along the stream sides. Several broadleaved areas within the plantations are of importance for surviving fragments of relict ancient woodland vegetation.
- 3.2.6 The current conservation values of the woodlands in the project area are heavily affected by this history of intensive forestry use. The occurrence of native woodland communities has been very much reduced to small isolated pockets through coniferisation or heavy grazing, often with only a degraded range of the expected component species remaining.
- 3.2.7 Surviving pockets of ancient woodland occur as scattered, degraded remnants associated with streams and flushlines, or alternatively small stands that have developed within plantations since their enclosure for forestry. In other areas woodland has degraded to scattered tree cover in open grazed land.
- 3.2.8 Above the woodlands there is a diversity of other habitats including the hugely important moorlands which are of international importance to breeding wader populations. The interface between the moorlands and the woodlands is of particular importance to the unusual and varied number of raptors that breed in the area, including goshawk which are particularly successful here, as well as recently established buzzard, merlin, peregrines and ravens. Even osprey have been seen in the valley as summer visitors and it is hoped that one day soon a breeding pair may arrive. The moorland fringe also provides important habitat for black grouse.
- 3.2.9 The moorlands support other specialist animal assemblages, including mountain hare and notable invertebrate species. Lower in the valleys, the complex of habitats includes grasslands, flushes, scree and wood pasture. Varied river habitats provide for a wealth of plants and animals and many rare and important invertebrate and fungal assemblages have been found in pasture grasslands – particularly in the Alport Valley.
- 3.2.10 The reservoir habitats are also a vital component of the wildlife value of the area and support large numbers of breeding sandpipers as well as breeding red breasted mergansers and wintering populations of other waders and waterfowl.
- 3.2.11 The main habitats present within the valley and their associated interest are described in more detail in the following sections.

Summary of habitat and species interests.

- 3.2.12 Many priority UK and Peak District priority habitats and species are represented in Upper Derwent including a variety of woodlands, moorlands and grassland types. These are summarised in the table below. Although conifer plantations dominate the landscape some of the most important habitats in the valley include the relict ancient woodlands, wood pasture, relic clough woodlands, diverse flushes and streams, rush pastures, shoreline habitats, grasslands (particularly occasional herb rich grasslands), in-bye land, rocky outcrops, and the internationally important moorlands.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

UK and Peak District BAP Habitats in the Upper Derwent

UK Priority BAP Habitats	Peak District BAP
Upland oak woodland	Upland /oak birch woods
Wet woodlands	Wet woodlands
Lowland wood pastures and parkland	Parkland and veteran trees
	Rough pastures
Upland hay meadows	Hay meadows
Lowland meadow	Unimproved pastures
Lowland dry acid grassland	Unimproved pastures
	Rough grazing
Upland heathland	Heather moorland
Purple moor grass and rush pastures	Rush pasture
Blanket bog	Blanket bog
Mesotrophic standing waters	Ponds
	River corridor habitats

- 3.2.13 In turn these support a wide range of plants and animals including significant numbers of UK protected, UK and Peak District BAP species including black grouse, curlew, lapwing, twite, brown hare, watervole and others. The main interests are shown on the table overleaf. Some of the species are winter or summer visitors such as osprey and whooper swan. In addition a number of other unusual visitors have included records for red kite, great northern diver, red throated diver, eider, pintail, kittiwake and rough legged buzzard. However, the area is probably best known for its raptors, particularly goshawk, as well as black grouse, red breasted merganser, its heronries and breeding waders such as sandpipers, golden plover and curlew.
- 3.2.14 Less well known interests include the watervole, badger, mountain and brown hare, as well as a diversity of invertebrate and fungal assemblages. The declining red squirrel was known in the valley until the mid-1990s and even pine marten has been recorded in the past.

**UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006**

UK and Local BAP Species in the Upper Derwent

Species	UK BAP priority Species	Peak District BAP species	UK protected species
Mammals			
Badger			√
Brown hare	√		
Daubentons			√
Pipistrelle bat	√		√
Noctule			√
Water Vole	√	√	√
Reptiles			
Lizard			√
Slow worm			√
Birds			
Scaup			√
Black grouse	√		
Bullfinch	√		
Curlew		√	
Common scoter	√		√
Fieldfare			√
Goldeneye			√
Goshawk			√
Kingfisher			√
Lapwing		√	
Linnet	√		
Merlin			√
Osprey			√
Pintail			√
Peregrine			√
Reed bunting	√		
Skylark	√		
Spotted flycatcher	√		
Songthrush	√		
Twite		√	
Whooper swan			√
Fungi			
Rosy Waxcap	√		

Ancient Woodlands

3.2.15 Ancient Woodlands are sites which have had continuous woodland cover since at least 1600. They support diverse and complex animal and plant communities, some of which are rare or restricted to this type of habitat. The Upper Derwent has had a long history of changing woodland cover and has a high concentration of ancient woodland

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- sites compared to other typical areas of the Dark Peak. Some of these ancient woodland sites have a long history of conversion to coniferous cover with several having already converted to conifers by the 1870's. Many of the remaining ancient woodlands were converted to conifers during the creation of today's extensive plantation forest. Consequently many have now been incorporated into commercial plantation to some extent and or / subjected to grazing by sheep, and this has resulted in a reduction of species due to felling, shading out and the suppression of natural regeneration.
- 3.2.16 At least 28 woods in the Upper Derwent are listed on the Ancient Woodland Inventory. Recent archaeological and ecological surveys (Bevan 1998; Winn 2004) have added to this list, with additional sites with surviving ancient woodland remnants and other formerly wooded sites. Most of the Valley's ancient woods have been planted with conifers, including sections of Grimbocar Wood, Hope Cross, Hagg Torr Coppice, Ridges Coppice, Hancock Wood, Hollin Clough and others. Much of the ancient character of these woods has been lost, although some relict ancient woodland flora survives in parts of these plantations where broadleaved cover has survived.
- 3.2.17 Ancient semi-natural woodland survives in small amounts, for example, along Abbey Brook. Examination of recent Archaeological plans (Bevan, 1998) shows that much of this area can be considered an ancient woodland site with several areas of semi-natural woodland. There are also many veteran trees and flushes in this area. Adjacent areas of woodland, managed with the moorland, provide high value, complementary open, grazed woodland habitats at the moorland/woodland fringe.
- 3.2.18 Of the oak/birch woodlands perhaps the most significant surviving examples are at Grimbocar/Rough Woods and Ladybower/Priddock Woods. Grimbocar/Rough Woods is notable for its large and diverse fungal community, mainly associated with the planted beech areas, and its significant colony of toothwort. Ladybower Wood, although owned by STW, is a Derbyshire Wildlife Trust nature reserve. Ladybower Wood is a fine example of a sessile oak wood and is of considerable local importance for its lichen flora. In particular the lichen *Usnea hirta* occurs here at possibly its only site in the Midlands. Ladybower Wood and other areas of the Upper Derwent's woodlands also support breathtaking spring displays of bluebells. Ladybower and Priddock Woods are both included in Sites of Special Scientific Interest for their importance as native woodland habitats.
- 3.2.19 Some of the ancient woods have been interplanted with non-native broadleaves such as sycamore, beech and sweet chestnut. Elsewhere, the occurrence of native woodland communities has been very much reduced to small isolated pockets through coniferisation or heavy grazing. Generally, this has resulted in reductions in habitat diversity and characteristic species assemblages but many of these ancient woodland sites have a high potential for restoration.
- 3.2.20 Several areas of scattered trees/remnant woodland occur on ancient woodland sites, such as at Clough Wood, although the woodland interest in these areas can often be low. In the Alport Valley, two small pockets of remnant woodland occur within the approximate locations of the ancient woodland site. These generally hold rather poor, open fragmentary stands but several areas of scattered broadleaved native trees

occur at this site, both in the ancient woodland areas and outside, and would benefit from removal of surrounding conifers to release them and allow regeneration.

Key findings: Ancient woodland

- A number of ancient woodland sites survive in the Upper Derwent;
- Many ancient woodland sites have been planted with conifers;
- Many ancient woodland areas have been degraded by grazing;
- Some AW ground flora persists in areas converted to plantation.
- Surviving ancient semi-natural woodlands are rich in flora and fauna.

Wet Woodlands

- 3.2.21 Some of the most important wet woodland areas survive in Ridge Clough and Haggside, close to Lockerbrook Farm. These hold species-rich, high quality, fragments of semi-natural wet woodland habitat in sheltered ravine/clough sites, with good levels of deadwood habitat. Typically these areas support a variable cover of alder, often over a diverse ground flora with a range of herb and sedge species such as remote sedge (*Carex remota*), yellow pimpernel (*Lysimachia nemorum*), bugle (*Ajuga reptans*) and ferns. Hazel is most often associated with these sites.
- 3.2.22 In many other areas however this community occurs in an impoverished form, limited to scattered areas of alder trees over fragments of ground flora. Examples include areas of Grimbochar and Nab Woods, the Hagg Tor Coppice area, Hey Bank Clough, Ridge Wood and the Lodge Cote area. There is a high potential to expand the wet woodland resource at all these sites, to create larger areas of native woodland habitat.
- 3.2.23 Stands of alder are particularly important for wintering flocks of siskin and redpolls and some provide important areas for ground-nesting woodcock. There are a number of small birch/alder carr woodlands in the Alport Valley and these are known to support important fungi including three rare species *Russula alnetorum*, *Naucoria scolecina* (a Red Data book species) and *Leccinum bruneogriseolum*.
- 3.2.24 Wet woodlands with alder and willow are particularly important for invertebrates. These are foodplants for a large number of species and *Salix* blossom provides an important nectar source in spring for early insects.

Key findings: Wet woodland

- Occasional species rich semi-natural wet woodlands survive eg. Hollin Clough, Haggside and Banktop;
- Most are impoverished alder woodlands/scattered trees;
- There is high potential to expand wet woodlands and other native woodland habitats in these areas;
- Some areas contain good levels of deadwood habitat eg. Banktop;
- Stands of alder are particularly important for wintering flocks of siskin and redpolls and provide important areas for ground-nesting woodcock;
- Some areas of alder and birch woodland support rare fungi and invertebrates.

Relic Clough Woodland

- 3.2.25 Many semi-natural woodland fragments survive in cloughs, either on the valley slopes or in the valley bottoms. Many of these areas are little more than a handful of well spaced trees but some form well-defined linear groups along stream sides. These sites are always small and are not recognised in the ancient woodland inventory but many are likely to be relics of ancient woodlands, reduced through prolonged grazing. Many of these relic clough woodlands have flushes running through them. Where such flushes occur in open semi-natural woodland cover, they can be species rich. In the lower slopes however, they have been impoverished through heavy shading from surrounding conifers.
- 3.2.26 Amongst the many cloughs containing this type of woodland, examples include cloughs at Ouzelden, Abbey Brook, Stone, Wiseman Hey, Haggside, Ashton, Howden, Hollin, Walkers, Dovestone, Upper Misdén, Linch, Cranberry, the lower reaches of Westend, Ridge, the upper reaches of the Derwent at Humber Knolls, Landside and Lockerbrook.

Key findings: Clough woodland

- Semi-natural woodlands along cloughs are often likely to be relict AW but are too small to be recognised on the ancient woodland inventory.
- Most have flushes running through them, adding to habitat diversity;
- Flushes in open semi-natural woodlands are often species rich but many are impoverished through shading from surrounding conifers.

Secondary Broadleaved Woodlands

- 3.2.27 In addition to ancient semi-natural woodland fragments, other more recent broadleaved woodlands occur which are not associated with cloughs. Probably of mixed origins, including some which originated as plantations and some from natural regeneration, these woods are mostly dominated by oak. They have been affected less by recent conifer than the ancient semi-natural woodland sites but have been subject to grazing. They generally have a more limited botanical interest but can be of importance for a range of woodland birds.
- 3.2.28 Significant areas of such woodland occur along Oaken Bank and Stainery Clough, in the far north of the valley, as well as along Abbey Brook and elsewhere.
- 3.2.29 In the Bank Top area, outside the ancient woodland site, small areas of semi-natural woodland occur where plantation forestry is not evident, or where recent restoration programmes have favoured the development of woodland cover. Additional small areas of native woodland also occur at Deer Holes, as well as at Upper Misdén Clough and areas of scattered trees along Cranberry Clough. Here the woodland interest lies in the open scattered tree habitats which can support a moderately rich flora.
- 3.2.30 More unusually, there are a couple of locations where aspen can be found eg. Deer Holes and Oaken Bank. These are likely to be relict populations of aspen which occur only rarely elsewhere in the Dark Peak. Deer Holes also supports a significant population of bearberry.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 3.2.31 These broadleaf woodlands support a wide range of woodland birds and are most important during summer, when they hold considerable numbers of small breeding birds, including redstarts, wood warblers, pied flycatcher, tree pipits as well as sparrowhawk and cuckoo. In winter, flocks of thrushes, coal tits and goldcrests use these areas as alternative sites to conifer plantations for feeding, whilst stands of alder are particularly important for wintering flocks of siskins and redpolls. Long eared owl is also known to breed in the Upper Derwent and is likely to use a variety of woodland types.
- 3.2.32 Fungi are also an important constituent of these woodlands and areas of scattered tree cover. In the Alport Valley, areas of birch woodland as well as single alder and birch trees support rare fungi such as *Leccinum bruneogriseolum*, *Naucoria scolecina*, *Russula alnetorum*, *Russula lundellii*, *Hypholoma ericaeoides* and *Hypholoma udum*.
- 3.2.33 The Alport Valley also supports important invertebrate assemblages including Red Data Book and Nationally Scarce species, along with a large number of common and local species, in a range of wooded habitats. Similar assemblages are likely to be present elsewhere in the Upper Derwent.

Key findings: Secondary broadleaved woodlands

- Important areas for breeding birds such as redstart, wood warbler, tree pipit, sparrowhawk, cuckoo, pied flycatcher etc;
- Areas of alder particularly important for wintering flocks of siskins and redpolls;
- In winter, important alternative feeding areas for thrushes, goldcrest, coal tit etc.
- Some areas of alder and birch woodland support rare fungi and invertebrates.

Plantation Woodlands

- 3.2.34 Broadleaved plantations in the Upper Derwent tend to be botanically species poor. They are nevertheless of importance for their bird life. In the Upper Derwent, such woods may provide alternative nest sites for goshawk, which favours tall straight trees found in broadleaved and coniferous plantations for nesting. Open-structured, mature broadleaved plantation woodland also provides ideal hunting habitat for this species. Areas of broadleaved plantation are widespread and include areas such as Abbey brook and the West section of Haggside Wood. These areas are also important for their bird life.
- 3.2.35 Conifer plantations are the predominant habitat in the Upper Derwent, especially around the three reservoirs. Large commercial plantations occupy the sheltered valley sides, including slopes to the south and east of Ladybower, and the west side of the Derwent Valley from Ashopton viaduct to Slippery Stones. Large areas are also present in the Snake and in the Alport valley.
- 3.2.36 Within the conifers, areas of relict broadleaved cover survive beside streams, contributing to habitat diversity, including possible remnants of ancient woodland

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

vegetation. Mostly, however, the conifer plantations are botanically impoverished due to heavy shading and acidification. Where clearings occur, there are exceptions with notable plant communities, such as at Fearfall Wood. This is particularly the case where clearing and broadleaved cover coincide along stream flushes and cloughs where coniferous cover is less dense. Impenetrable, un-thinned areas with little light reaching the ground tend to have few flowering plants. A greater diversity occurs in deciduous larch plantations.

- 3.2.37 In addition, in the Alport valley, single birch or alder trees surrounded by planted conifers support rare fungi and similar assemblages are likely to be found elsewhere in the Upper Derwent.
- 3.2.38 The conifer stands were formerly of importance for red squirrel, although this species is now thought to be extinct in the Upper Derwent. Similarly, pine marten has been recorded in the Derwent valley, although records probably relate to pioneer individuals from the more usual northern range of this species. These animals are largely nocturnal and will cover large areas in their nocturnal wanderings and require extensive wild areas to prosper. The Upper Derwent offers such habitat with the potential for future colonisation.
- 3.2.39 Badgers are also found throughout the valley and areas of dense conifer plantation offer good cover.
- 3.2.40 The conifer plantations are also of importance ornithologically. The close sitka spruce plantations on the east side of Win Hill hold one of a handful of heronries in the Peak District. Conifer plantations also support healthy populations of goldcrest, coal tit and chaffinch. Dense evergreen conifer plantations also provide important feeding and roosting sites for small passerines during winter months.
- 3.2.41 Larch plantations are particularly important – for a wide variety of birds. Larch produces a reliable and often abundant seed crop when mature, providing a rich food source for many species. Goshawks find the tall trunks and relatively open canopies ideal for nesting. Sparrowhawk and buzzard will also nest in these trees, as well as pines. Siskin, redpoll and crossbill frequently feed and nest amongst larch and other conifers. Japanese larch plantations at the northern end of Howden reservoir are considered to be of particular importance to crossbill and siskin.

Key findings: Plantation Woodlands

- Relict clough woodland are present in some plantations, including valuable stream-side flushes.
- Provide nest sites for goshawks, buzzards, sparrowhawk as well as redpolls and crossbills.
- Important for wide variety of breeding and feeding woodland birds
- Heronry present in sitka spruce, one of only a handful in Peak District;
- Larch plantations especially important feeding areas for a variety of birds;
- Broadleaf specimens with the conifer plantations support important fungi eg. in Alport valley;
- Potentially attractive to 'pioneering' pine marten.

Moorlands, Open Cloughs and Flushes

- 3.2.42 Beyond the shelter of the wooded valleys lies the extensive bleak 'wilderness' of the moorland blanket peat plateau. This area is of international importance for its moorland vegetation communities and for its breeding bird populations.
- 3.2.43 Of particular relevance to the woodland habitat interests of the Upper Derwent is the interface between the moorland and the upper woodland edges. Increased habitat diversity in this ecotone provides opportunities for a wide variety of species groups, including birds, invertebrates and flowering plants. Active woodland planting should be avoided in these areas where light, open woodland cover has arisen through sparse natural regeneration.
- 3.2.44 The edges and boulder slopes of the gritstone edge often support a good mixed heath vegetation of heather and bilberry. These areas are vital for mountain hares because they use the cavities and cracks in the rocks for shelter and also breeding sites. There is a good isolated outpost of mountain hares on the Derwent moorlands. Mountain hare also occurs in the Alport Valley.
- 3.2.45 This moorland-woodland interface is also of critical importance for black grouse, which is the subject of a continuing re-introduction programme in the Upper Derwent.
- 3.2.46 Open cloughs form one of the most important habitat features of the Upper Derwent. These deeply incised tributary valleys cut into the moorland fringes. The steep slopes of the cloughs are covered either by dwarf shrub heath or a mosaic of heath acid grassland and bracken. Scattered trees – remnants of woodland cover are also present in several areas and can be described as wood pasture in some areas eg. Langley Bank, adjacent to the A57. Flushes occur along the river and stream sides and localised seepages occur on the steep-sided cloughs.
- 3.2.47 The habitat mosaics of the cloughs support a great variety of birds, invertebrates and plants. A number of uncommon and rare plant species have been recorded from the cloughs, including woodland species such as beech and oak ferns, black spleenwort, brittle bladder fern and midland hawthorn. Blackden View Upper Clough is recognised for its rare fern and bryophyte community. The sheltered cloughs are also of value to open habitat species such as bilberry bumble bee and green hairstreak butterfly. In Stainery Clough ant nests can be found either side of the clough whilst Slippery Stones is widely recognised as a good site for lizards. Ring ouzel utilises a variety of different habitats within the cloughs. Cloughs can also be strongholds for watervole and these have been recorded at Near Deep Clough close to Millbrook plantation.
- 3.2.48 In places, the typical vegetation communities of the moorland upland descend the upper valley slopes, with areas of heather and acid mire communities in valley side flushes. Cloughs of particular note occur in Jarvis Clough, Ditch Clough plantation, Highshaw Clough, Grainsfoot, Dovestone, Ridge Clough, Ouzelden, Alport and upper Reddale Clough.
- 3.2.49 Ditch Clough Plantation includes a strip of blanket bog. Another species rich flush with marsh orchids occurs on National Trust land on the valley side near Deer Holes.

- 3.2.50 Several small species-rich flushes occur in the Slippery Stones area, particularly east of the stream, and such areas are generally too high in current interest for the promotion of additional tree cover.

Key findings: Moorlands, Open Cloughs and Flushes

- Upper Derwent is internationally important for its moorland vegetation communities, for breeding waders and breeding and hunting birds of prey;
- Mountain hares present particularly around rocky edges;
- Moorland-woodland interface of particular importance, with increased habitat and species diversity;
- Moorland-woodland edge especially important for re-introduction of black grouse;
- Remnants of ancient woodlands survive in cloughs;
- Many open cloughs contain species rich flushes;
- Important habitat mosaics in cloughs support both woodland and non-woodland species;
- Moorlands cloughs and flushes may provide refuges for water vole.

Streams

- 3.2.51 Rocky streams and associated crags provide additional habitat diversity in the Upper Derwent. A striking feature of these fast flowing streams is their diversity of aquatic mosses and liverworts and the river Derwent just north of Slippery Stones is an important site for lichen species characteristic of gritstone streams.
- 3.2.52 Water vole also occurs within the Derwent Valley and has been recorded at Near Deep Clough, close to Millbrook plantation and in the Alport Valley.
- 3.2.53 Typical upland stream birds include dipper, grey and yellow wagtails and common sandpiper. In addition, sand martin colonies occur on some rivers, eg. the River Ashop. The Ashop is also of importance for invertebrates with areas of river shingle, temporary areas of shallow water, braided channels, exposed river sediment, eroded river banks and landslips, coarse woody debris in the channel, waterfalls and natural weirs, riffles and pools.
- 3.2.54 In the Alport Valley, the tarn and nearby peaty hollows support invertebrate species associated with peat such as the black darter *Sympetrum danae*, the rare fly *Themira germanica* and other local flies such as *Campsicnemus alpinus* and *Hydrophorus nebulosus*.
- 3.2.55 It is possible that the streams in the valleys may also support the UK protected native white clawed crayfish.
- 3.2.56 Pools are relatively uncommon in the project area but at Alport Castles, teal and a reed bunting have both bred and the area supports a population of frogs.

Key findings: Streams

- Good diversity of aquatic mosses, liverworts and lichens in some streams;

- Streams and flushes provide refuge for water vole;
- Streams support a range of notable birds, including sandpiper, dipper, grey and yellow wagtails.
- River banks of some rivers e.g. river Ashop are home to sand martin colonies.
- Wide variety of river habitats particularly in Ashop of high potential value to invertebrates.

Reservoirs

- 3.2.57 The reservoirs provide a number of distinct habitats including open water, marginal drawdown zones, permanent marshy fringes, shore line and tree lined edges.
- 3.2.58 The open water provides a haven for a regular wintering population of pochard and varying numbers of goosander, goldeneye and tufted duck. Rafts on Ladybower Reservoir also provide important loafing sites.
- 3.2.59 Little ringed plover have been known to breed on the marginal draw zone and the reservoir shore line provides nesting sites for red-breasted merganser and common sandpiper.
- 3.2.60 Red breasted merganser requires breeding sites close to the water's edge that are well concealed by dense vegetation and are known to nest in dense rhododendron on the reservoir edge. Common sandpiper breeds in significant numbers in the Upper Derwent, with territories distributed around much of the shoreline, particularly on Ladybower Reservoir. In the bay between the ruins of Ashop and Nether Ashop Armes, territories are held well back from the water's edge into adjacent woodland.
- 3.2.61 In this area, the shore is broad and very gently sloping and as the plantations here are rather open the sandpipers breed behind a section of bank which is often popular with anglers. Usually they require more or less stony/gravelly shorelines when nesting and the species is more or less absent from areas with continual human disturbance.
- 3.2.62 Permanent marshy fringe habitats with soft rush and oval sedge occur at the extreme ends of the reservoir arms. These are used by species such as teal for feeding and nesting and the reed fringes are important for reed bunting.
- 3.2.63 A variety of bats have also been recorded feeding around the reservoirs, including daubenton, pipistrelle and noctule. Whilst some of these have roosts associated with the dams others are likely to be present in tree roosts or nearby farm buildings.

Key findings: Reservoirs

- Shoreline is an important breeding area for common sandpiper;
- Red breasted mergansers use the dense rhododendrons flanking the reservoirs for nesting;
- Permanent marshy fringes are used for nesting by birds such as teal.
- Marginal draw down zone is used by breeding reed bunting and ring ouzel.
- Deep open water areas are used by wintering pochard and other species

such as golden eye and tufted duck.

- Rafts are used by nesting herons and loafing sites for many birds.
- Important bat feeding areas

Grasslands and Wood Pasture

- 3.2.64 Grasslands as distinct from grass moor are of limited occurrence in the Upper Derwent and are more or less restricted to valley bottom sites. They occur in enclosed farmland, most notably in Alport Dale and the Woodlands Valley. Most are of low interest botanically but some contain more diverse flush areas. The more mixed areas usually have a greater range of animal and bird species, and therefore richer communities as a whole. These grasslands also include 'wood pasture' with shelter belts and hedges as well as shrubby grassland.
- 3.2.65 Improved meadows are of relatively limited occurrence in the Derwent valley whilst unimproved pasture accounts for roughly 50% of the grasslands present. Only a very small proportion of the grasslands could be classified as hay meadows but include fields on the south side of the Mill Brook Bay of Ladybower Reservoir.
- 3.2.66 Rushy pastures are scarce but some fields include marshy strips, usually dominated by soft rush. The only sizeable area is situated on the ridge between Two Thorn fields Farm in the Woodlands Valley and Hagg Side. These areas are potentially very valuable as breeding sites for snipe and curlew. In addition rushy fields in the Alport valley close to the Alport river are also likely to be valuable for invertebrates as well as waders and water vole.
- 3.2.67 The Alport valley grasslands are known to support lizards and are of particular value for fungi. Areas of wood pasture in the Alport valley also support other rare fungi and these interests are likely to be repeated elsewhere in the Upper Derwent.
- 3.2.68 Wood pasture also forms valuable habitat for saproxylic invertebrates such as the rhinoceros beetle *Sinodendron cylindricum*. Examples of wood pasture with veteran trees can also be found at Two Thorne Fields Farm.
- 3.2.69 Inbye land in the Alport Valley supports rough acid and wet grassland habitats and bracken beds. Other examples of inbye occur near Lanehead, in Two Thorns, Rowlee, Upper House, Old House, Ashes farms and as well as near Grindle Clough and more generally around the valley. Inbye land can be particularly important for ground nesting birds such as ring ouzel, lapwing and twite which use these areas for nesting as well as feeding their young.
- 3.2.70 Areas of improved grassland on the east side of the northern arm of Ladybower Reservoir, around Mill Brook, have a 'parkland' character. Mature hedgerows, fenced shelter belts, 'specimen' trees and estate buildings here are associated with the former Derwent Hall. The habitat is noteworthy for its bird interest with spotted flycatcher, garden warbler, redstart and tree pipit amongst others.

3.2.71 Shrubby grassland is largely restricted to areas of unimproved grassland either side of the woodlands arm end of Ladybower Reservoir and is of importance to small songbird populations as nesting sites and cover.

Key findings: Grasslands and Wood Pasture

- Nationally and regionally important areas for fungi and fungal assemblages
- Wood pasture/ parkland contain veteran trees of high importance to fungi and invertebrates
- Inbye land and rush pasture is of high potential value to waders and other ground nesting birds
- Mosaic of habitat types associated with grassland in some 'parkland' areas is of high value to a range of animal groups particularly birds.

Ledges, Rock Outcrops and Screes

3.2.72 Ledges and outcrops are an important feature of value to a range of animal and plants. These areas are out of reach of grazing pressure and permit sensitive plants to grow. These can provide important nectar and food plants for a variety of invertebrates.

3.2.73 Frequent landslips provide pioneer conditions, which suit certain plants and insect communities including rare species and specialised insect fauna associated with the talus and screes. Ledges and screes are a feature of the Alport Valley and elsewhere.

3.2.74 These areas are also important refuges for cliff nesting birds such as peregrines and ravens.

Key findings: Ledges, rock outcrops and screes

- Important refuge for sensitive plants
- Important nectar source for insects
- Screes home to specialist invertebrate fauna
- Ledges provide important nest sites for cliff nesting birds eg. peregrine and raven

3.3 Landscape Character

3.3.1 The Upper Derwent Valley falls outside the Derbyshire Landscape Character Assessment 2003 and High Peak Character Assessment 2005. Although a full Landscape Character Assessment for the valley has not yet been carried out, working with the landscape character classifications for neighbouring studies the landscape of the Upper Derwent Valley can be broadly divided into the following character areas:

- Open Moorland
- Enclosed moorland fringe
- Upland river valleys
- Farmed river valleys
- Wooded reservoir valleys

Each character area has its own particular identity that contributes to the special character of the Valley. Variations between local landscape character areas are significantly influenced by landform, land cover and by the more subtle inter-relationships between historical development and the cultural associations of the Valley. These landscape character types combine to create an intimate pattern of landscape with a very high visual quality. It is these highly scenic views coupled with the richness of the natural environment that determine the valley's popularity with visitors and local communities.

Refer to Landscape Character Map in Appendix.

3.4 Heritage Audit

- 3.4.1 The Upper Derwent Valley has a fantastic wealth of heritage features throughout the valley. The area has been extensively archaeologically surveyed and contains a wealth of significant site types within the valley. These include Romano-British and monastic settlements, extensive areas of charcoal burning platforms, lead smelting hearths and the Navy settlement at Tin Town. Detailed reports of these surveys are available from the project partners and should be consulted in detail at the inception stage of any future projects to reveal potentially vulnerable archaeological features.
- 3.4.2 Whilst much of the valley has been surveyed archaeologically, more detailed work may still have to be undertaken in advance of works in certain areas. Much field survey and analysis of the area in the late 1990s has recommended, for example, further investigation of cloughs in advance of any woodland regeneration projects, as there is some potential for the discovery of additional medieval smelting sites in these areas. *'The Upper Derwent Valley 10,000 Years in a Peak District Valley'* is a fascinating account of the evolution of the Peak District landscape from the Mesolithic to the present day written by Bill Bevan (*Tempus Publishing Ltd 2004*).

3.5 Vulnerability Assessment

Biodiversity Features

- 3.5.1 Some habitats and species within the valley are vulnerable to change. There are a number of particular key points which will need to be carefully considered during the implementation of the design plan and these are described below.

Woodlands

- 3.5.2 Some areas of woodland will be particularly vulnerable to any felling operations. These include broadleaved trees within the conifer plantations which support important fungi as well as isolated veteran trees. Similarly areas of wet woodland within conifer plantations may be hidden and care should be taken not to fell these. Particular care will need to be undertaken when felling in locations of ancient semi-natural woodland habitat to avoid damage to fragile ground flora species typical of these habitats.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 3.5.3 Many streams and flushes are present within the woodlands some of which are relatively species rich. Care should be taken not to damage these during any felling. In addition there may be ant nests within the woodlands. Wood ant nests have been recorded from other areas within the valley and may be vulnerable to any nearby felling operations and other activities – especially where such operations entail vehicular access.
- 3.5.4 The broadleaf woodlands support a wide range of woodland birds and are most important during the summer months when they hold considerable numbers of small breeding birds, including redstarts, wood warblers, pied flycatcher, tree pipits as well as sparrowhawk and cuckoo. As a general rule felling and other operations should avoid the breeding bird season.
- 3.5.5 In areas close to areas of wet woodland care should be taken not to disturb ground nesting woodcock.
- 3.5.6 In other areas of the valley there are specific areas of woodland where red breasted mergansers are known to nest in dense rhododendron that flank the edges of the reservoir. Removal of rhododendron in areas favoured by this species should be avoided or phased to allow establishment of other suitable native shrubs which will provide replacement habitat. Clearance of these will require careful planning to avoid the breeding bird period. Similarly felling of nearby coniferous trees will need to be undertaken outside the breeding bird season.
- 3.5.7 In the conifer plantations the close Sitka spruce plantations on the east side of Win Hill hold one of a handful of heronries in the Peak District and compartments of this plantation hold healthy populations of gold crests, coal tits and chaffinches. Herons have also nested on a small island in Derwent Reservoir, below Howden Dam. These and other areas of dense evergreen conifer plantations are perhaps most important as feeding and roosting sites for small passerines during the winter months. Within the overall woodland conversion plans it will be necessary to maintain areas of this character for their associated resident bird life.
- 3.5.8 Larch plantations provide probably the most important conifers for a wide variety of birds. These trees produce a reliable and often abundant crop of food when mature and the relatively small and soft cones allow even small birds to extract the seeds. Several of the local specialities rely greatly on these trees and it would be beneficial to maintain some areas within the overall scheme. In particular goshawks find the tall trunks and relatively open canopies ideal for their large bulky nests as do sparrow hawk.
- 3.5.9 The conifer stands are also of potential for the declining red squirrel although it is now thought to be extinct from the Valley where it formerly occupied the denser plantations at the northern end of Howden Reservoir and Lynch Clough.
- 3.5.10 Badgers are likely to be widespread across the woodlands, particularly in denser plantations. Care should be taken to search for badger setts prior to felling. Areas where setts are found should be avoided.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

3.5.11 Finally a variety of bats have also been recorded feeding around the reservoirs including daubenton, pipistrelle and noctule. Whilst some of these have roosts associated with the dams others are likely to be present in tree roosts or nearby farm buildings. Areas to be felled should be checked for the presence of bat roosts. Where roosts occur these should be avoided. Trees containing roost should not be isolated from other woodland areas. It will be important to retain corridor links and shelter/buffer from otherwise potentially exposed locations. All buildings should be routinely surveyed for bats prior to any work.

Cloughs

3.5.12 Mixed dry dwarf shrub heath communities are typical of the clough sides and steeper slopes over thin soils. In general these communities hold existing nature conservation interest. Botanically it is the flushes and springs of the clough slopes and alongside the streams which are an outstanding feature of the cloughs.

3.5.13 The habitat mosaic of some of these cloughs means that a great variety of birds, animal invertebrates and plants are associated with them. A number of uncommon and rare plant species have been recorded from the cloughs such as beech and oak fern, black spleenwort, brittle bladder fern and are also of value to the bilberry bumble bee and green hairstreak butterfly.

3.5.14 Such cloughs with existing nature conservation interest are vulnerable to increased disturbance and increased tree cover would be inappropriate. Proposals for regeneration of woodland cover in cloughs must carefully balance the benefits of new native woodland cover with the need to conserve valuable moorland and moorland edge habitats, especially in areas of sensitive springs and flushes.

Grasslands

3.5.15 The Alport valley grasslands are known to be particularly valuable for fungi and fungal assemblages. Between Alport Castles Farm south to Heyridge Farm there is an extensive block of fields, mostly west of the Alport river, which are of national and regional significance for fungi. Planting or encouragement of natural tree regeneration in these sorts of areas would result in loss of this interest over time and should be avoided.

3.5.16 Rushy pastures are few and far between although some of the other field types have marshy strips, usually dominated by soft rush, running through them. The only sizeable area is situated on the ridge between Two Thorn Fields Farm in the Woodland Valley and Hagg side in Derwent Dale. These areas are potentially very valuable as breeding sites for snipe and curlew. In addition rushy fields and flushed vegetation in the Alport valley close to the Alport River are also likely to be valuable for invertebrates as well as waders. These areas also provide valuable habitat for an existing population of water voles. Encouragement of increased tree cover in these areas would not be desirable.

3.5.17 Some grasslands within the valleys will be of existing botanical interest and planting up of these areas should be avoided.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

3.5.18 Grasslands will also be of importance to breeding ground nesting birds and works anticipated in these areas should be carefully timed to avoid the nesting period.

Moorlands

3.5.19 Planting out and encouragement of tree regeneration into the moorland fringe should be avoided in areas of existing conservation value. These include areas of flushed and marshy vegetation which are important for a wide variety of moorland birds, invertebrate food sources as well as for their plant communities. Similarly moorland fringe mixed heath vegetation supporting a good concentration of bilberry will be of particular value to the bilberry bumble bee particularly where these areas are close to herb rich meadows.

3.5.20 The edges and boulder slopes of the gritstone edge often support a good mixed heath vegetation of heather and bilberry. These areas are vital for mountain hares because they use the cavities and cracks in the rocks for shelter and also breeding sites. It is unlikely that such localities will be within the zone of woodland extension but planting in these types of localities should be avoided.

Streams

3.5.21 Some streams contain rich bryophyte communities and have flushed vegetation adjacent and along their bank sides. These are particularly vulnerable to damage by falling felled trees and associated debris. Some of the streams are also known to support water vole. This mammal may be more widespread throughout the catchment and care should be taken not to damage bank sides that may contain burrows. Open areas where this mammal occurs, such as on the Alport floodplain should not be planted up or encouraged to regenerate woodland cover.

3.5.22 In addition white clawed crayfish may also be present in the streams. Care should be taken not to damage the integrity of the banks or stream substrate.

3.5.23 The rivers Ashop and Alport support sand martin colonies. These will be particularly vulnerable to disturbance during the breeding season and any works anticipated in proximity to these will need to be carefully planned.

3.5.24 In Alport Dale the tarn and nearby peaty hollows support invertebrate species associated with peat such as the black darter *Sympetrum danae*, the rare fly *Themira germanica* and other local flies such as *Campsicnemus alpinus* and *Hydrophorus nebulosus*. These areas are vulnerable to damage and new routes of access to these should be avoided.

Reservoirs

3.5.25 Common sandpipers breed in significant numbers in the Upper Derwent around the shore line edge with territories distributed around much of the shoreline. They are particularly vulnerable to disturbance from anglers as well as from visiting tourists. Any new access arrangements for the shoreline should be very limited and areas should be set aside which limit use by anglers.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

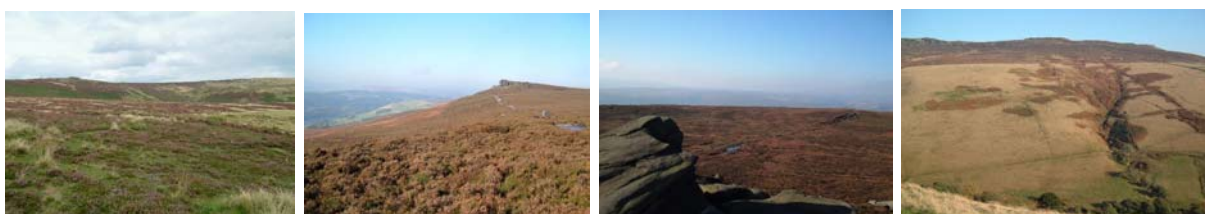
- 3.5.26 Other areas that the sandpipers use include the bay between the ruins of Ashop and Nether Ashop and here territories are held well back from the water's edge. In this area the shore is broad and very gently sloping and as the plantations here are rather open the sandpipers breed behind a section of bank which is often popular with anglers.
- 3.5.27 In a few locations along the tree lined edges of the reservoirs there are stunted pines, especially in the inlets, which birds, particularly siskins and crossbills, use as a landing stage and refuge when going to the water's edge to drink. If possible these stages should be retained within the overall woodland conversion plans.
- 3.5.28 The marshy fringes of the reservoir are also important for breeding birds such as teal and new access proposals in these areas would need to be avoided or limited.
- 3.5.29 Red-breasted merganser has been recorded nesting in dense rhododendron on the shores of Derwent Reservoir and proposals for the control of invasive species will need to accommodate this interest for the time being - at least until this species is able to use alternative areas of native broadleaved cover developing along other parts of the reservoir edge.

Cliffs and unstable rock exposures

- 3.5.30 Planting up of these features should be avoided. These can be herb rich as well as important for invertebrates and ledge nesting birds such as peregrine and raven.
- 3.5.31 These areas are sensitive to disturbance, particularly from climbers. New access routes to these sorts of features should be avoided.

Landscape Features

- 3.5.32 Open Moorland



- An exposed upland landscape of grit stone overlaid with peat and consisting of ridges with rocky outcrops and rounded plateaux incised by steep sided cloughs.
- There is a distinct absence of trees and shrubs. Fast flowing watercourses within the cloughs feed the rivers and reservoirs below. The landscape is designated as being of national importance for nature conservation.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- Built structures are absent except for occasional grouse butts and shooting cabins. The landscape is designated as Access Land and footpaths and less frequently bridleways run up to and along high ground. Geological and archaeological features are distinctly present in both close range and expansive views.
- Views are open and extensive across the high ground and to the lower valley slopes, except where locally enclosed by steep-sided cloughs.

3.5.33 Enclosed Moorland



- An upland landscape of grit stone overlaid with peat. Located on upper valley slopes and rounded hills with rocky outcrops.
- Occasional clusters of trees. Distinctive In-by-ye land with sheep grazing on a mixture of grassland and moorland vegetation. Some areas are designated as nationally important for nature conservation.
- Man-made features include occasional grouse butts and stone field boundaries enclosing small to medium fields. Many areas are designated as Access Land and there are distinct bridleways, tracks and footpaths. A large number of archaeological features have been recorded and many such as walls and sledge runs are visible.
- The landscape is fairly open with local enclosure provided by field boundaries. There are extensive views to the woodland and reservoirs in the lower valleys and to open moorland

3.5.34 Upland River Valleys



UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

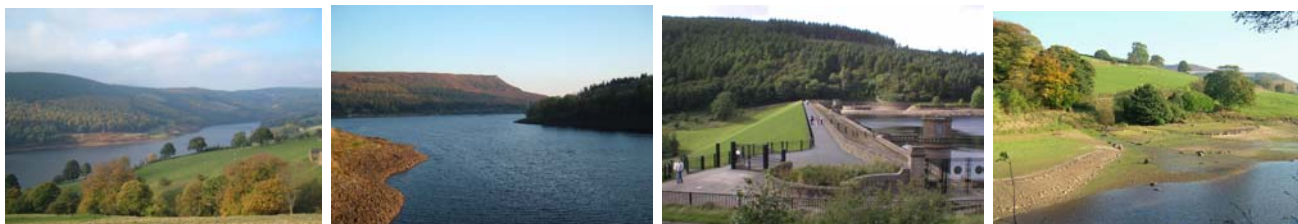
- A landscape of steep sided narrow valleys and adjacent cloughs which are cut deeply into the surrounding moorland. Meandering rivers on valley floor are fed by the fast flowing watercourses from adjacent cloughs.
- There are small to medium scale woodland blocks mainly in lower elevations of valleys with both conifer plantations and remnant broadleaf. The land is used for extensive sheep grazing. Upper parts of the valleys are designated of national importance for nature conservation.
- Some stone walls in lower parts of valleys. Tracks with fords or footbridges, bridleways and footpaths mostly along valley floor following the watercourses. Geological outcrops and archaeological features are prominent.
- Views are channelled by landform and in the lower valleys tree cover also restricts visibility. Views to woodland and reservoirs in lower valleys.

3.5.35 Farmed River Valleys



- Steep sided valleys with meandering rivers on the valley floors and adjacent cloughs with their fast-flowing watercourses.
- Scattered small to large scale coniferous and broadleaf woodland. Enclosed sheep grazing in small to medium fields which are bounded by stone walls and occasional hedges.
- Man made elements are more apparent than on higher ground. There are frequent clusters of farm buildings, bridges and occasional weirs. Distant views of transport routes along the valley floor including major roads strongly influence the sense of remoteness and tranquillity as well as tracks, bridleways and footpaths. Many archaeological features are present and many features are buried.
- Views are generally contained within the valleys and are restricted by tree cover – with more expansive views from the upper reaches.

3.5.36 Wooded Reservoir Valleys



- A landscape of fairly broad and steep-sided valleys truncated by reservoirs and the adjacent cloughs which contain fast flowing watercourses.
- The reservoirs form the focus of the valleys. There are major and minor roads with car parks which can reduce the sense of tranquillity and remoteness in places. The valleys provide a setting for a variety of recreational activities with visitor facilities as well as tracks, bridleways, footpaths providing access alongside reservoirs, through woodland and up to the moors. Archaeological features are abundant with stone dams and aqueducts dominating many views.
- The lower valley slopes contain medium to large coniferous plantations and small grazed fields bounded by stone walls which are interspersed with small broadleaf woodlands.
- Views are contained within the valley with longer distance views across the reservoirs and to the moorland and are restricted where woodland is present.

Heritage Features

3.5.37 Identifying areas of Sensitivity – Principles

It is essential during the inception period for any regeneration project ideas that project managers consult with Senior Conservation Archaeologists at the Peak District National Park Authority. Prior to early design work for habitat creation and management works it is essential that project managers clearly identify any archaeological sensitivities within the project area.

On the basis of the archaeological information that is already available for the Upper Derwent Valley we would recommend that no planting occurs on the following site types and that where such sites are under woodland efforts should be made to sensitively remove the trees;

- Prehistoric burial barrows and cairns
- Prehistoric settlements
- Romano-British settlements
- Medieval farmsteads

- Lead smelting hearth
- Charcoal burning platforms
- Tin Town Navy settlement
- Other features associated with the construction of the reservoirs

Moorland

Moorland area landscapes have been shaped by climatic and human activity but due to relatively low intensity of use in recent history a large number of archaeological features survive from all periods of history. Many features remain partially or fully hidden by peat. Livestock grazing, stone quarrying and peat cutting for fuel throughout the medieval period have had the greatest impact on earlier artefacts and assemblages. Peat erosion can reveal artefacts and structures within this buried landscape. Many of these artefacts have been recorded by Ramblers and archaeological societies and detailed locations and descriptions are held by the Peak District National Park Archaeological Team.

Implications of CMP Proposals

Habitat creation plans propose natural regeneration of native broadleaved woodlands – and possibly some native broadleaved planting on the moorland fringes, and the extension of some existing broadleaved woodland along river valleys.

Farmland

PDNP survey work has recorded many archaeological features preserved under post medieval pasture - visible as a variety of earthworks. Continued pressures on farmland risks the loss of some of these features and although few artefacts have been found within the pastures due to presently low ploughing, arable and cropping levels, these areas are still inherently sensitive.

Implications of CMP Proposals

Habitat creation plans propose broadleaved native planting at the boundaries of some farmland together with the restoration of existing field boundary fencing and walls.

Wooded Valleys

Extensive coniferous and deciduous plantations were created on many valley slopes adjoining the reservoirs in the early twentieth century. This planting had significant negative impact on the survival and identification of archaeological remains. Key surviving archaeological features correspond to surviving areas of ancient woodlands. Ploughing for tree planting in the plantations is thought to have destroyed many features with current dense tree cover hiding much of what remains. Plantations on the gentler valley slopes are thought to have had more of a negative impact on archaeological remains than the steeper slopes – due to people having lived or worked on the gentler slopes.

Implications of CMP Proposals

Habitat improvement / creation plans propose the selective removal of areas of both coniferous and broadleaved plantation. Tree removal presents both an opportunity and a threat to remaining archaeological features in the valley.

Clearance of trees to create rides, access improvements and view points may provide opportunities for archaeological surveyors to locate and identify features.

Using sensitive felling methods

Project managers should inform surveyors of proposed clearance projects and ascertain the likelihood of significant features being present. A statement as to how the clearance work will be undertaken should be developed and agreed – wherever possible using tools and techniques that will cause minimal ground disturbance.

Consideration should be given to:

- Use of heavy machinery (felling, haulage, chipping) to ensure that it causes minimal ground disturbance;
- Movement of machinery across site should be limited to routes agreed prior to commencement of works;
- Grubbing out of tree stumps and ripping of the soil on completion of felling works should be minimised as these intrusive operations would be most likely to disturb often subtle features.

Sensitive replanting

Planting should be undertaken with similar project manager and archaeological surveyor liaisons and planning prior to works. New planting should only be undertaken when the area has been archaeologically surveyed to the satisfaction of the landowner.

New planting layout plans should give due consideration to the position of any identified features and only be carried out on agreement with the landowner in accordance with advice given by archaeological specialists. New planting should where appropriate allow public access / reduce access to a feature and trees should be planted in such a way that their roots at maturity will not affect the integrity of the feature.

Accessibility to features

Removal of planting may provide an opportunity to improve access to current or newly located features within the landscape. Where felling has revealed a new feature or already documented feature, dialogue between archaeological specialists and the project manager is crucial to ensure that its public accessibility is agreed. Opportunities through felling, to create new viewpoints either to or directly around features should be taken up wherever possible.

Upper Derwent Valley

Landscape Zones



Legend



Open Moorland



Enclosed Moorland



Upland River Valley



Farmed River Valley



Wooded Reservoir Valley



Study Area

4. CONSERVATION MANAGEMENT PLAN – THE VISION

4.1 Upper Derwent Valley Woodlands – A Vision Statement

“Regeneration, Celebration, Integration!”

“In 50 years time, the woodlands of the Upper Derwent Valley will not only have had their beauty enhanced, through further extensive conservation and habitat re-creation, they will also be celebrated, understood and cherished by both visitors and local people alike. By better integrating them into the Peak District landscape in a sustainable manner, through traditional methods and the involvement of communities, we are securing their unique heritage and biodiversity for generations to come.”

The Upper Derwent Valley Partnership 2004

4.2 Aims and Objectives

- 4.2.1 The Partnership’s ambitions for woodland regeneration and forest management in the Upper Derwent are comprehensive and far-reaching. In time, the Partnership’s management vision for the Valley will entail transformation at the landscape scale. Most notably, this will include the removal of extensive areas of coniferous plantations and their replacement by new broadleaved woodlands and open habitats which complement the wildlife and landscape value of the woodlands and adjacent upland fringes.
- 4.2.2 This transformation will not happen overnight. It will require long-term commitment and considerable resources to achieve the scale of change envisaged. It will also be necessary to effect change in a planned and well managed fashion, to maintain the current high visual and amenity value of the Valley. It will be a key operational objective for all Partners to ensure that felling work, in particular, does not result in significant impacts to the natural and cultural heritage of the Valley. It will be equally important to ensure that there are no significant adverse impacts upon the Valley’s visual and recreational attractiveness - as a key visitor venue in the National Park.
- 4.2.3 The following aims and objectives express the overall aspirations of the Partnership for the long-term management of woodlands in the Upper Derwent Valley:

<i>UDV Woodland Conservation Plan: Aims and Objectives</i>
<i>Delivery of UK Biodiversity Strategy and Biodiversity Action Plans – making a significant contribution to the delivery of Peak District Local BAP objectives and targets</i>
<ul style="list-style-type: none">• Priority management for ASNW and PAWS• Restoration of PAWS to LBAP woodland habitat and creation of new native woodland to reverse woodland fragmentation• Maintenance, enhancement and extension of wood pasture and veteran trees• Bringing ASNW and non-ancient semi-natural woodland into ‘favourable condition’ (to be defined for non-SSSIs)

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

Delivery of UK and Regional Policies for Sustainable Forestry and environmentally and economically sustainable forest landscapes

- Delivery of integrated forest/woodland plans at a landscape scale - taking into account other economic land use objectives in a manner which conserves and enhances the historical and cultural aspects of the Valley's landscape.
- Priority management for ASNW and PAWS
- Retention and management of a mixed woodland cover, recognising the landscape and potential commercial benefits of coniferous plantations
- New markets and supply for woodland produce, craft and design
- Development of new uses/users for woodland thinnings – wood-turning, furniture making, crafts etc.
- Woodlands integrated with the rural economy and other land management uses.

A diverse and visually attractive wooded landscape of increased 'naturalness' and high value for wildlife – maximising benefits to biodiversity and ensuring the long term survival of the Valley's highly valued woodland landscape.

- Conversion of large areas of conifer plantations to native semi-natural broadleaved woodlands
- Natural regeneration and planting of new native woodlands
- Development of new mixed upland fringe landscape based on wood pasture/extensive grazing and natural woodland regeneration
- Maintenance of existing ASNW, broadleaved wooded cloughs, scattered mature and regenerating tree cover
- Conservation, maintenance and renewal of veteran trees
- Retention and management of a mixed woodland cover, recognising the landscape and potential commercial benefits of coniferous plantations
- Conservation and increase in deadwood habitats within the valley's woodlands
- Appropriate conservation grazing in woodland and woodland margins to enhance biodiversity
- Maintenance of high value, non-wooded habitats – acid flushes, acid grasslands, dwarf-shrub heath, streamsides, rides, ponds, etc.
- Development of transition habitats from continuous woodland cover to open moorland and scattered trees, softening existing 'hard' plantation edges
- Enhanced woodland edge habitat structure at the water's edge around the valley's reservoirs.

Restoration of areas of native woodland

- Priority management for ASNW and PAWS
- Restoration of PAWS to LBAP woodland habitat and creation of new native woodland to reverse woodland fragmentation
- Removal/reduction in cover of non-native conifers

Expansion of native woodland

- Woodland cover will expand in area, extending out from existing woodland margins and linking small or isolated semi-natural habitats to increase the biodiversity and landscape benefits they provide
- Expansion and linking of clough woodlands
- Expanded woodland cover in the valleys, compatible with landscape interests and agriculture

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- Natural processes of colonisation and regeneration will influence the extent and distribution of woodland cover (supplemented initially, where appropriate, by 'assisted' natural regeneration using locally-collected seed)
- Development of appropriate active management – such as extensive grazing – will encourage a diverse and dynamic woodland/moorland edge and promote an integrated upland fringe management regime.

Successful conservation and expansion of populations of scarce and persecuted bird species

- Continuation and development of nestwatch project to promote understanding and protection of raptors
- Targeted habitat management for raptors within the UDV
- Maintenance of woodland/moorland edge to allow natural regeneration and dispersed woodland expansion into moorland fringe to provide suitable habitats for black grouse
- Continuation of black grouse release project?

A landscape rich in accessible cultural heritage (see also AADP)

- Sites of archaeological importance will be protected and maintained
- Maintenance of cultural landscape heritage by managing/maintaining appropriate boundaries and other features – hedges, walls, banks, hollow-ways etc.

The UDV will become an exemplar of best practice in integrated woodland management in the Peak District and more widely

- Develop demonstration and training programme to disseminate experience and practice in the UDV

Contributions to BAP objectives

4.2.4 A key aim of the Conservation Management Plan is to contribute to the delivery of national and local Biodiversity Action Plan objectives. The following PDNP Local BAP plans of relevance to the Upper Derwent include:

- Upland Oak/Birchwoods
- Wet Woodlands
- Veteran Trees in the Wider Countryside
- Water vole

4.2.5 A main thrust of the Plan is to promote the conservation and enhancement of upland oak/birchwood and wet woodland habitats, especially along cloughs and valley slopes. The main priorities in this respect will be the restoration of ancient and semi-natural woodlands, including the restoration of semi-natural woodland cover on planted ancient woodland sites (PAWS) and regeneration of new native woodland cover on former woodland sites, along cloughs and on upper valley slopes at the interface with adjacent moorland habitats.

4.2.6 Following the PDNP BAP, this Plan seeks to identify and prioritise sites for woodland restoration and expansion, according to the objectives expressed in the BAP.

Peak District BAP Objectives: Upland Oak/Birch and Wet Woodlands

Objective 1

Maintain extent of upland oak/birchwoods and wet woodlands and bring all existing ancient semi-natural woodland into favourable condition.

Objective 2

Bring priority examples of non-ancient semi-natural oak/birchwoods and wet woodlands into favourable management.

Objective 3

Convert Plantations on Ancient woodland sites (PAWS) back to oak/birchwoods and wet woodlands where this is a priority.

Objective 4

Reverse woodland defragmentation by creation of new woodland, particularly by natural regeneration. Prioritise the extension/linking of existing ancient woodlands and relic clough woodland. Prioritise river valleys for wet woodland expansion.

- 4.2.7 The veteran tree resource of the Upper Derwent is unquantified but it will be a standing aim of the Plan and its implementation to retain ancient trees and trees of value for fungi, dead wood and invertebrates wherever they occur, consistent with the requirements of safe access provision in important visitor areas.
- 4.2.8 A population of water vole is known to be supported in the streamside pastures of the Alport Valley and the species may occur elsewhere along the main Derwent and Woodlands Valleys. The Plan aims to ensure that these habitats remain open and undisturbed, and suitably managed to maintain adequate habitat for the maintenance and expansion of existing water vole populations.

Other Biodiversity Objectives

- 4.2.9 In addition to BAP objectives, the Plan seeks to contribute to other biodiversity objectives. In particular, the Plan supports continuing programmes for the protection and conservation of scarce and persecuted birds of prey and for the re-introduction of scarce breeding birds such as black grouse along the fringes of adjacent moorland.
- 4.2.10 The Peak Nestwatch Initiative consists of a consortium of partners including the RSPB, Severn Trent Water, The National Trust, Peak District National Park Authority, Forestry Commission, South Yorkshire and Derbyshire Police Forces and the South Peak Raptor Study Group. Peak Nestwatch has been running for five years and supports a central part-time, seasonal project co-ordinator.
- 4.2.11 This Conservation Plan includes provision to support the continuation of the Nestwatch project over the next 5-10 years, to continue its important work in nest monitoring and protection, raising public awareness and educating the public through media campaigns.

4.2.12 Since 2003, Severn Trent Water has funded a programme for black grouse re-introduction in the Upper Derwent Valley. The programme has so far included release and monitoring of captive bred birds for three consecutive years, with further releases planned in 2006. This Conservation Plan includes provision to continue the release and monitoring project beyond 2006, to ensure successful re-introduction of this scarce species to the Peak District.

Forestry Policy

4.2.13 The main provisions of current national and regional forestry policy are summarised in section 2 of this document. The Conservation Management Plan has been prepared against this policy background, including the UK Forestry Standard, the England Forestry Strategy and the East Midlands Regional Forestry Strategy *Space4Trees*. The restoration and management aims and objectives of the Plan are capable of realising these policy objectives in a landscape-scale context to deliver sustainable woodland/forest management and all its associated social, economic and environmental benefits.

4.2.14 Plan implementation will also follow best practice and guidance for forestry and woodland management, including appropriate and sensitive felling practices and restocking. In particular, there is a strong emphasis in the Plan on the protection and enhancement of native woodland resources and on continuous cover silvicultural practices.

4.2.15 The Plan follows Forestry Policy in taking a strong lead from Biodiversity Action Plans to guide its environmental sustainability. It prioritises the restoration and management of ancient woodlands, including the conversion of Planted Ancient Woodland Sites back to semi-natural native woodland cover. At the same time, the Plan recognises the potential for future economic benefits from commercial forest management and the important visual and amenity values supported by the Valley's current wooded landscape, "conifers and all".

4.3 Current Woodland Management Plans in the Upper Derwent

4.3.1 Commercial forestry planting in the Upper Derwent began in the early decades of the 20th century and continued until the 1980s. Plantations adjacent to the three reservoirs were planted mostly between 1920 and 1940, with the specific objective of protecting the water supply. Most of these new plantations were established on former agricultural land. There are also some remnant areas of Ancient Semi-Natural Woodland (ASNW) and Planted Ancient Woodland Sites (PAWS). In places, narrow clough woodland cover forms narrow corridors up towards the adjacent uplands.

4.3.2 Commercial planting has been dominated by Lodgepole pine, Sitka spruce, Hybrid and Japanese larch. Spruce and larch are the most productive species with prolific natural regeneration of both species occurring on recently restocked sites. Areas of broadleaved planting are also long established in places, with planted species including oak, beech and sycamore.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

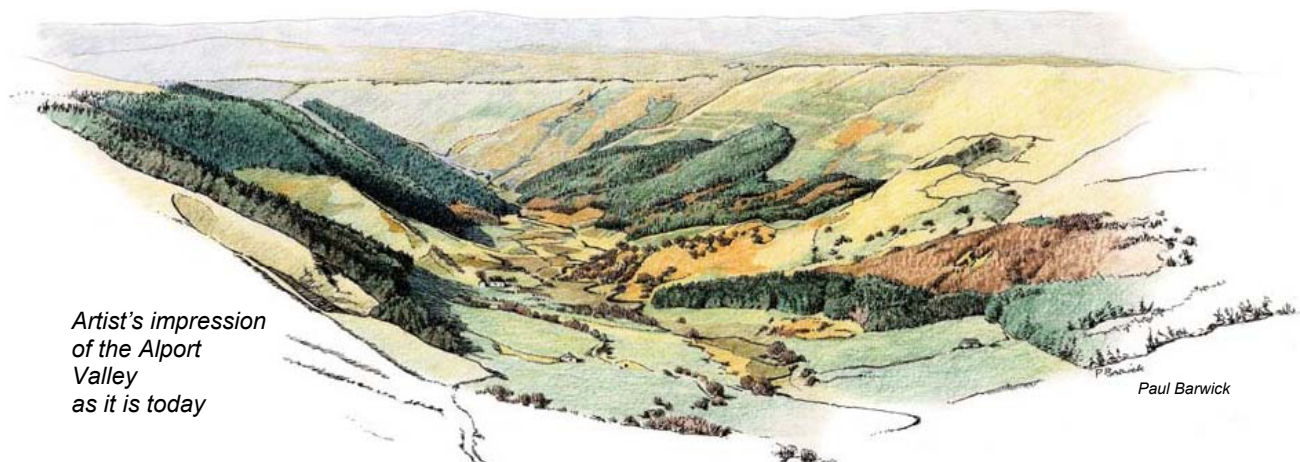
- 4.3.3 Currently the species make-up is predominantly coniferous, and a large proportion is made up of older mature stands, more than 50 years old. In the Snake, much of the plantation woodland is overmature. Elsewhere, on the upper slopes of Lockerbrook and West End, the plantation woodland is relatively even aged with a high proportion of plantation trees in the 30 – 40 year class.
- 4.3.4 The woodlands of the Upper Derwent are the subject of existing management plans, developed independently by the three main landowners. Severn Trent Water, the Forestry Commission and the National Trust have worked closely together in determining these plans but they have never been drawn together in a unified single plan.
- 4.3.5 Severn Trent Water holdings were the subject of a Landscape Design Plan in 1995, which formed the basis for felling and replanting until 2005. The STW estate is managed under a Woodland Grant Scheme (WGS) which is currently being reviewed and renewed. A new 20 year Forest Plan has been prepared to replace the Landscape Plan and WGS. A Forest Authority Centres of Excellence award was granted to STW in 1993, and the estate gained FSC Forest Certification approval in 2001.
- 4.3.6 Forestry commission holdings in the Upper Derwent, including holdings in the upper Woodlands Valley (Snake), and areas now leased from the National Trust in the Alport Valley, are all covered by standard Forest Design Plans which guide felling and silvicultural practice.
- 4.3.7 Some of the National Trust woodlands in the Upper Derwent are managed under a Woodland Grant Scheme and management is described in a Woodland Plan for the NT's High Peak Estate as a whole. The Plan describes management objectives and activities based on proposals for the first 5 year, for 20 years and objectives for the longer term. The Alport Valley is entirely owned by the National Trust and has been the subject of an Alport Strategy and the Alport Management Plan. These plans have been prepared by the National Trust in partnership with the Forestry Commission and following extensive public consultation. The Alport Management Plan incorporates the Forestry Commission's Forest Design Plan for the Alport Valley.
- 4.3.8 In 2002, Jonathan Winn of the Peak District National Park was commissioned to review ancient semi-natural woodland (ASNW) sites and planted ancient woodland sites (PAWS) within the Upper Derwent Valley. The resulting report describes the current condition of these sites and associated habitats and makes recommendations for future management, based on relevant LBAP objectives. The main areas of interest for restoration to native woodland are located at Hollin Clough (to the north and east of the Derwent Dam), Hagg Side (on the north western slopes of Derwent Reservoir), Bank Top and the Cold Side area of the upper reaches of Howden Reservoir.
- 4.3.9 This Plan aims to draw together the management proposals and recommendations from these existing plans, to provide an integrated management plan for the Valley's woodlands and a joint vision for the long-term future of the Valley's woodland landscape.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 4.3.10 Conservation management forms part of the management ethos for all the managing agencies at work in the Upper Derwent and opportunities are sought for enhancements during day-to-day implementation of woodland management plans. This includes ride and footpath management, boundary works and other maintenance and control of invasive species, such as rhododendron. Management has also included the establishment of new areas of native woodland, such as new woodland developing through natural regeneration and planting near Slippery Stones.
- 4.3.11 Other active conservation projects in the valley include the Peak Nestwatch Project in which all three landowners are involved. The Upper Derwent Valley is of great importance to resident raptors, in particular Goshawk and Peregrine. The project monitors and protects raptors in the valley and forest plans and forestry operations seek to take into consideration the specific needs of these protected birds.
- 4.3.12 The black grouse reintroduction project, supported by STW, has been running for 3 years, with up to 60 birds being released on the woodland fringes of the Upper Derwent. The Upper Derwent Valley Woodlands provide important edge habitat for the species. Further edge management is planned to create a suitable ecotone adjacent to the areas favoured by the black grouse, with tree thinning and shrub planting planned to provide additional suitable habitat.

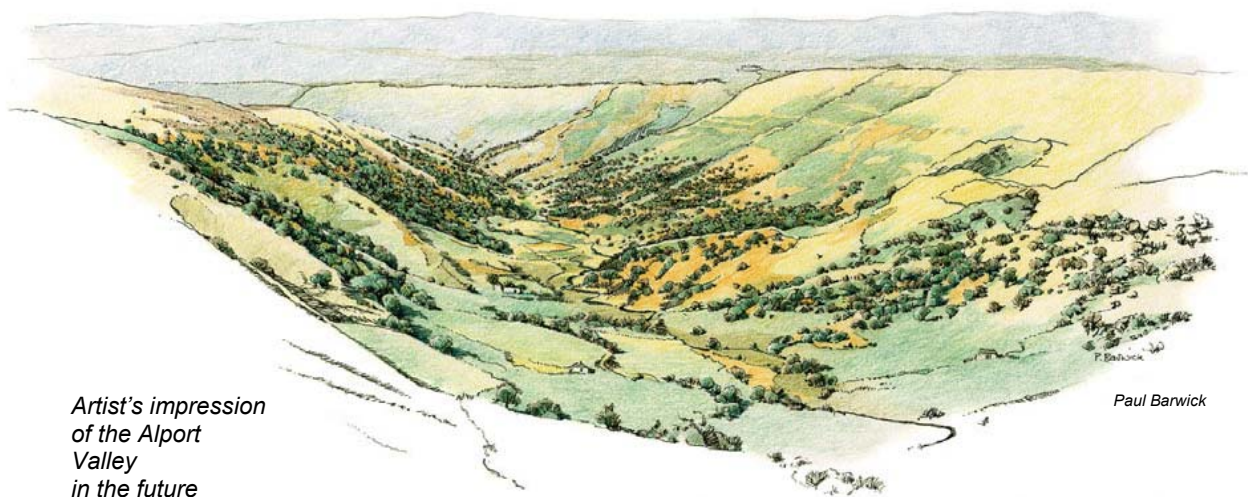
5. DESIGN PRINCIPLES

- 5.1.1 The current vision for the future of the woodlands of the Upper Derwent was given its first expression in the Alport Strategy and a new management plan for the Alport Valley in 2002 (revised in 2004). The Plan was the product of a partnership between



the National Trust and the Forestry Commission, together with contributions from other local community representatives and interests – in the form of the Alport Advisory Group and public consultation meetings.

- 5.1.2 The Plan articulates a vision for the Alport Valley of a changing landscape in which the current existing coniferous plantations are gradually replaced by new native woodlands. The vision describes a final landscape in which woodlands form part of a transition to the uplands moorland habitats of the adjacent SSSI/SAC, passing from open farmland in the valley bottom, through areas of continuous native woodland, gradually thinning through patchy woodland cover and open areas with only scattered trees, to the open moorland above.



UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 5.1.3 This new Conservation Management Plan aims to extend this vision to the Upper Derwent as a whole, to achieve significant conservation benefits at a still larger landscape scale.
- 5.1.4 The design concept for this landscape-scale vision is based firmly on the LBAP Objectives for woodland biodiversity in the Peak District (see Aims and Objectives above). For the Upper Derwent, this means:
- Restoration of surviving ancient semi-natural woodlands (ASNW) to favourable condition;
 - Restoration of planted ancient woodland sites (PAWS) to semi-natural broadleaved woodland;
 - Replacement of existing coniferous and broadleaved plantation woodlands by native semi-natural broadleaved woodlands;
 - Establishment of new native woodlands, primarily by natural regeneration.
- 5.1.5 To achieve these objectives, management will follow a number of Design Principles, described in the following paragraphs for each of the main areas of the Upper Derwent.

5.2 The National Trust Long term Vision for Woodland

- 5.2.1 The National Trust has an active woodland management plan for the whole of its High Peak Estate. The overarching aims of this High Peak Estate Woodland Plan have been imported into this Conservation Management Plan (CMP). Like the CMP, the NT woodland plan presents a vision of the High Peak Estate's woodlands as semi-natural habitats containing species native or appropriate to the area. It includes the following principles and objectives, which will inform woodland management in the Upper Derwent:
- Trees, shrubs and ground flora will vary in their age, structure, and species and the woods will be self sustaining through natural regeneration.
 - The woodlands will make a significant contribution to sustaining and enhancing the biodiversity of the Peak District and will be a reserve from which flora and fauna can expand their range.
 - The woodlands will be a valuable public resource through their positive contribution to the landscape quality of the area and as a venue for recreational and educational activity.
 - The woods will be an integrated component of the estate; their management will take into account other land use objectives and will respect the historical and cultural aspects of the estate's landscape.
 - Woodland cover will be increased or introduced in appropriate places where it would form a more beneficial and ecologically appropriate land cover than the existing one.
 - Ensure the long term survival of the Estate's woodlands
 - Maximise benefits to biodiversity
 - Make a significant contribution to the goals of the Peak District Local Biodiversity Action Plan
 - In recognition of their special character, care for veteran trees

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- Ensure that deadwood habitat is adequately represented and carefully managed
- Protect sites of archaeological importance
- Increase the public's enjoyment and appreciation of our woods
- Help woods that have become degraded to restore and regenerate themselves
- Continue to manage wood pasture areas as wood pasture so that the special nature of the trees and microhabitats in these areas is not adversely affected by too much tree cover/shade
- Expand and link together clough woodlands
- Expand woodland cover in the valleys, where this is compatible with the interests of landscape and agriculture
- Where possible, allow woodlands to be dynamic in their development and accept that the woodland edge will move over time. Allow natural processes to happen and to govern the development of the woodland habitats
- Provide timber on a small scale for craft industries using local skills, where this will not be harmful to other NT objectives
- Do not manage for, or aim to achieve, commercial timber production on the Estate
- Act as an exemplar of good woodland management in the Peak District

5.3 The Alport Valley

- 5.3.1 In the Alport Valley, existing conifer plantations will be converted over a 20 – 40 year time scale to a dynamic mosaic of semi natural habitats comprising upland oak/birch woodland of varying density, interspersed with open acid grassland, rich upland heath, open streams and abundant wet flushes.
- 5.3.2 Where conifer plantations are thinned, remnant broadleaved trees will be released from surrounding conifers.
- 5.3.3 Conversion of conifer plantations will aim to create semi-natural native woodland of varying densities and the retention and enhancement of existing wood pasture areas. Some conversion will take place under a continuous cover system, to maintain permanent landscape components and to avoid erosion and landslips on sensitive geology. These will be concentrated (a) on the steeper valley slopes where unstable ground conditions do not permit the total removal of tree cover (above the track and hamlet) and (b) where small areas of Scots pine are to be retained to form mixed conifer/broadleaf woodland (e.g. Gillott Hey).
- 5.3.4 Conifers retained on unstable ground will ultimately be converted to native broadleaf woodland. This will entail a mixture of heavy thinnings and some group regeneration fellings, to produce conditions under which native species can colonise the site. Those areas retaining a Scots pine component will be thinned to release selected specimens, whilst allowing regeneration of some native broadleaves and the establishment of a dwarf shrub ground layer. Some groups of trees on the very steep clough sides, eg. Swint Clough will be killed in situ by ring barking or similar means. This will encourage natural regeneration by providing increased light, and contribute to the deadwood habitat.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 5.3.5 Timber extraction operations will be limited and will avoid damage to existing habitats and developing native woodlands.
- 5.3.6 Areas of upland heath dominated by heather and bilberry moorland will be re-established with scattered broad leaved tree cover. The management of existing and future woodlands will aim to restore moorland edge communities along the margins of the wooded habitats, by selective thinning and felling works to create a diffuse, open woodland edge. Proposals will protect open acid grassland and associated wet flushed habitats and riparian zones.
- 5.3.7 In general terms, unless there are particular interests which require open habitats along watercourses, management will promote natural regeneration of trees along the banks of streams and rivers. Beside rivers and trees, increased tree cover of alder and willow will be encouraged where possible and existing wooded watercourses will be protected and maintained.
- 5.3.8 In the Alport Valley, an exception occurs where a known water vole population exists and would benefit from the retention and management of the existing rushy pasture habitats, without trees.
- 5.3.9 Natural regeneration will be the preferred method of restocking and regeneration. Where this is not possible, it may be necessary to consider direct seeding and planting of local provenance. Locally-collected seed will be sown after appropriate ground preparation and, in some places, planting will take place, using stock grown on from native seed where recruitment is inadequate.
- 5.3.10 The Vision for the Alport and the Upper Derwent generally includes the development of new 'wood pasture' habitat in which dispersed woodland and scattered tree cover occur, in transitions between permanent woodland cover and open farmland and moorland habitats. The long term maintenance of these areas will rely on grazing management. Opportunities will be sought to achieve appropriate grazing management of such areas through existing and future grazing tenancies and management agreements.
- 5.3.11 Veteran trees will be protected wherever they occur, to ensure their long term survival. New veteran trees will be encouraged by the retention of mature trees. Similarly, dead wood habitats will be promoted, leaving existing dead wood *in situ* and, where appropriate, new deadwood habitats will be created by ring barking selected unwanted trees.
- 5.3.12 In the Alport, all conifer plantation areas will be felled to waste. Felling will take place in small-scale group fells to create regeneration gaps. Over time, this approach is expected to replace the existing coniferous cover with native broadleaves. No major timber extraction operations will take place. Small scale operations may be considered if they can be carried out without causing unacceptable environmental damage and local markets are available for woodland produce. Continuous cover methods will be adopted in areas identified as vulnerable to erosion and landslip.

5.3.13 Woodland edge habitats will be promoted and enhanced by breaking up hard plantation margins in the initial felling proposals and by promoting open and native woodland habitats along the plantation edges. Existing and new native woodland will be managed to strengthen and complement the new landscape character of the valley.

5.4 Upper Snake Woodlands

5.4.1 The Woodlands Valley includes extensive areas of plantation woodland, managed both by STW and the Forestry Commission. In the upper valley, management of the FC's Snake woodlands will be based on an ambitious redesign of the existing plantation boundaries.

5.4.2 In addition to the landscape improvements this redesign will bring, marked species changes will occur, with a significant increase in broadleaved woodland cover, especially on the upper slopes and at the transition to adjacent upland habitats. After felling, plantation edges will be withdrawn from adjacent moorlands. Plantation boundaries will be reshaped and natural regeneration or broadleaved planting will restore native woodland at the woodland-moorland interface. All broadleaved areas will be managed to favour local native broadleaved species.

5.4.3 As in the Alport, management will also aim to restore moorland edge communities at this transition with upland oakwood. New native woodland management will also include broadleaved woodland along watercourses and sensitive management of riparian zones. Native woodland will also form an interface at plantation boundaries to form linkages internally with existing and new broadleaved elements.

5.4.4 In the Snake, commercial timber management will also continue to be an important objective and harvesting and restocking will plan for consistent and sustained timber production. Restocking will favour the most productive species – including larches and sitka spruce while delivering environmental objectives. Felling plans will be implemented to allow the required species changes and increased diversity at redesigned boundaries

5.4.5 The silvicultural systems adopted here and elsewhere will also accommodate environmental constraints, with significant areas managed under continuous cover. Clearfelling operations will facilitate the more rapid colonisation of native broadleaved species and will allow structural changes to be implemented. Clearfelling operations will be principally concentrated on the upper plantation edges. Because of the extremely challenging terrain and long-term low timber prices, some of these areas may be felled to waste. Clearfelling is proposed with the objective to maintain an age gap of at least seven years between adjacent coupes.

5.4.6 Continuous cover systems will be utilised to maintain permanent landscape components, especially on the steeper clough slopes, and valley sides visible from the A57. Areas of continuous cover are designed to maintain a permanently wooded environment. Most areas can ultimately be expected to develop a mixed character and will be managed to increase their structural diversity. Management of continuous cover areas will be by selective thinning and small-scale felling (up to a maximum of

- 1ha) to favour relict broadleaved trees and woodland remnants, sufficient to stimulate natural regeneration in sheltered conditions. Conifers can be expected to function as a nurse for immature broadleaved trees.
- 5.4.7 Selective regeneration felling is proposed for areas with difficult access. Restocking will be by natural regeneration wherever possible. Where this is insufficient, it may be necessary to underplant with Douglas fir in continuous cover areas and native broadleaved species in the broadleaved and mixed woodlands.
- 5.4.8 In the medium term, the progressive removal of plantation conifers at the upper margins of the area, by restoration felling to favour native woodland gives the opportunity to retain a proportion of the conifers to biological maturity and which will form an interface with adjacent productive plantations.

5.5 West End and Lockerbrook

- 5.5.1 Woodlands alongside the Upper Derwent's reservoirs are largely owned and managed by Severn Trent Water. However, the higher valley slopes, further from the water's edge, are owned by others, including the Forestry Commission and the National Trust. At West End and at Lockerbrook, the Forestry Commission has substantial holdings adjacent to STW woodlands.
- 5.5.2 In general, the principles for future management here will be similar to the Snake, with a combination of conversion of conifers to native broadleaves and areas with a continued commercial management function.
- 5.5.3 Plantation boundaries will be redesigned to improve their landscape appearance and enhance woodland edge habitats. New native woodlands and areas of open habitat with scattered trees will be promoted on upper slopes at the interface with open moorland. Hard plantation edges will be broken up to create a more diverse habitat structure and bring the moorland edge into woodland margins.
- 5.5.4 Felling and silviculture will be designed to take account of environmental constraints and objectives. Restocking will favour the most productive species whilst delivering environmental objectives.
- 5.5.5 Clearfelling proposals will facilitate the efficient production of timber whilst allowing structural changes. Felling works will be principally concentrated on the non-thin plateau areas which are more susceptible to windthrow due to wetter soils and greater exposure. Clearfelling is proposed with the objective of maintaining an age gap of at least seven years between adjacent coupes.
- 5.5.6 Continuous cover systems will be utilised to maintain permanent landscape components which will be concentrated on the steeper clough slopes, and valley sides visible from Derwent Lane and the reservoir edges.
- 5.5.7 Areas of continuous cover are designed to maintain a permanently wooded environment. Most areas can ultimately be expected to develop a mixed character and will be managed to increase their structural diversity. The exception to this is the

category described as 'selective regeneration felling'; in which continuous cover is designed to convert conifer plantation to predominantly native broadleaved woodland. Management proposals here will include selective thinning and small scale felling (up to a maximum of 1ha) to favour relict broadleaved trees and woodland remnants sufficient to stimulate natural regeneration in sheltered conditions. The conifer can be expected to function as a nurse for immature broadleaved trees. Selective regeneration felling is proposed for sites with difficult access.

- 5.5.8 Restocking will normally occur within two years of felling in order to allow sufficient time for completion of ground preparation and fencing. A notable feature of the plan will be the clearfelling of young conifer crops (planted since 1980) which were either established on inappropriate sites such as upland bog, or would be uneconomic to harvest.

5.6 The Upper Derwent Valley Woods – Severn Trent Water (STW) Woodlands

- 5.6.1 In the Upper Derwent Woods owned and managed by STW, the long-term management of the woods must meet a range of land uses and associated objectives. A zoned approach to management will be adopted to reflect these demands, including areas which will be primarily managed to maintain and enhance their value as an important recreation resource. Others will make greater use of the commercial potential of plantation woodlands and extensive areas will be managed primarily to promote wildlife and nature conservation values.

Recreation Zone

- 5.6.2 The northern sector of the STW woodland estate – including Howden, Derwent and the northern part of Ladybower are most heavily used for recreation. In this area, the guiding principle will be to enhance woodland diversity through a programme of phased felling and replanting and by managing selected stands as continuous cover. Replanting will be a mixture of conifers and broadleaves.
- 5.6.3 Some 'wood pasture' will also be conserved in this zone with wide spaced trees and grass and natural regeneration will be protected from sheep by protecting individual seedling trees.
- 5.6.4 The intention here will be to maintain landscape continuity to preserve the visual and amenity quality of the existing wooded valley. This does not mean that conifers cannot be replaced by broadleaved stands – especially in planted ancient woodland sites (PAWS) – but the process of conversion will take place over a timescale which allows for continuity of woodland cover over a high proportion of the current wooded area.

Wildlife Conservation Zone

- 5.6.5 Areas zoned for wildlife conservation will include areas where access for timber harvesting is restricted, (Bamford, Ashopton and along the A57). There is already a significant broadleaved presence in and around these woods and management will be based on small scale thinning and felling, favouring broadleaved regeneration as a means of re-stocking.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

5.6.6 Some areas of conifer will remain in mixture in these woods but the primary emphasis will be on the restoration of broadleaved woodlands, particularly to restore PAWS to semi-natural broadleaved woodland in the medium to long term. Opportunities will also be developed to increase open spaces within and around woodlands in these areas, to enhance their structural diversity.

Commercial Zone

5.6.7 The most extensive areas of woodland south of Ladybower, west of the upper valley, and in the Westend valley will be managed to continue to produce high quality timber for local markets. In this zone felling and replanting will be phased to improve age and structural diversity.

5.6.8 Replanting will be mixed as some regeneration from the previous crop is anticipated, but the main commercial species that grow well on the estate will be replanted to suit individual site types.

5.6.9 Opportunities will also be taken to increase areas of informal broadleaved woodland, especially near watercourses and to enhance forest edge by introducing open areas and allowing colonisation of native broadleaves and shrubs.

5.6.10 Future management will also concentrate on enhancing links to adjacent woodlands, including the two FC properties at Westend and Lockerbrook and the numerous informal native woodlands that surround the valley woodlands.

5.6.11 Silvicultural techniques which maximise the benefit of shelter from surrounding stands (including natural regeneration) will be implemented as the basis for developing a balanced and dynamic forest environment able to provide both timber and environmental benefits on a sustained basis.

5.6.12 Conservation interests within the forest will be maintained and enhanced through the progressive inclusion of appropriate broadleaved plantings in conjunction with restocking programmes.

Felling Strategy

5.6.13 The Upper Derwent Valley is a much-loved and much visited landscape. Its woodlands are required to meet multiple objectives for commercial, environmental and recreational land uses. In this context, a balance must be struck between replacing existing older mature woodland stands and conserving the special character of the current woodland cover. The size, shape and distribution of areas to be clear felled are important design considerations.

5.6.14 The general approach to felling in STW woodlands will be to target the most productive stands of spruce for clear felling, followed by other evergreen conifers such as pine and Douglas fir and larch. Management by clear/felling in these areas will be the main approach in the sectors of woodland identified as being most suitable for commercial timber production.

- 5.6.15 Within these sectors, the shape and size of each felling area has been designed to reflect the shape and scale of the landform and to take account of areas that have already been felled as part of the 1995 to 2005 Landscape Design Plan. As a result, larger areas planned for clearfelling will tend to be concentrated on upper slopes to reduce their visual impact from the valley bottom, with smaller more compact areas on the lower slopes. Timing of felling will be phased to allow adjacent areas to green up.
- 5.6.16 The felling proposals plan also shows large areas of managed retentions that will not be clear/felled, but managed on a smaller scale under continuous cover. Stands of previously well thinned conifers, broadleaved woodland and woodland around the main recreation facilities are considered to be the most suitable. These areas of long term retention will be managed by small-scale fells on a group selection system to maintain continuous forest cover.

Restocking

- 5.6.17 Restocking provides opportunities to enhance both the species diversity and age structure of the woodlands. Conifers will continue to be replanted where timber production is a primary objective, with species suited to site conditions. The replanting map does not distinguish between the minor species to allow for future management flexibility. It is anticipated that species from the original planting will regenerate naturally and that broadleaves will also spread into stands, resulting in a much more varied species pattern than at present. Where replanting is carried out, to meet specific objectives, species layout will be informal in nature, avoiding the regular shapes evident in the first rotation.
- 5.6.18 Around Derwent and Howden, one of the objectives at replanting will be to create stronger links to adjacent land. Where conifers are replanted, this will be on the lower, more accessible slopes with better growing conditions. Broadleaves will be favoured near water courses and on upper slopes, where they will link into naturally occurring native woodland. Some areas in this zone will not be replanted, to improve the shape and structure of the woodland outline and to allow enhanced views across the valley.
- 5.6.19 There is already a significant proportion of broadleaves in the property, which will be replanted in woodlands with specific conservation interest. There are currently 160ha of Planted Ancient Woodland Sites (PAWS) within the woodland area. In the replanting plan, over the first 20 years, 55ha will be retained or replanted with broadleaves and 35ha of existing conifers will be replanted with broadleaves or left as open ground. 55ha of PAWS have been zoned for conifer retention and a further 15ha which are currently under conifers will be restocked with conifers.
- 5.6.20 Natural regeneration of broadleaves will be encouraged to diversify the species mix. The addition of further groups of broadleaves along watercourses and on sheltered slopes is planned to follow the felling programme throughout the estate.
- 5.6.21 Restocking will also take the opportunity to diversify the forest edge and create a matrix of open ground within the forest with due regard to natural features and landform.

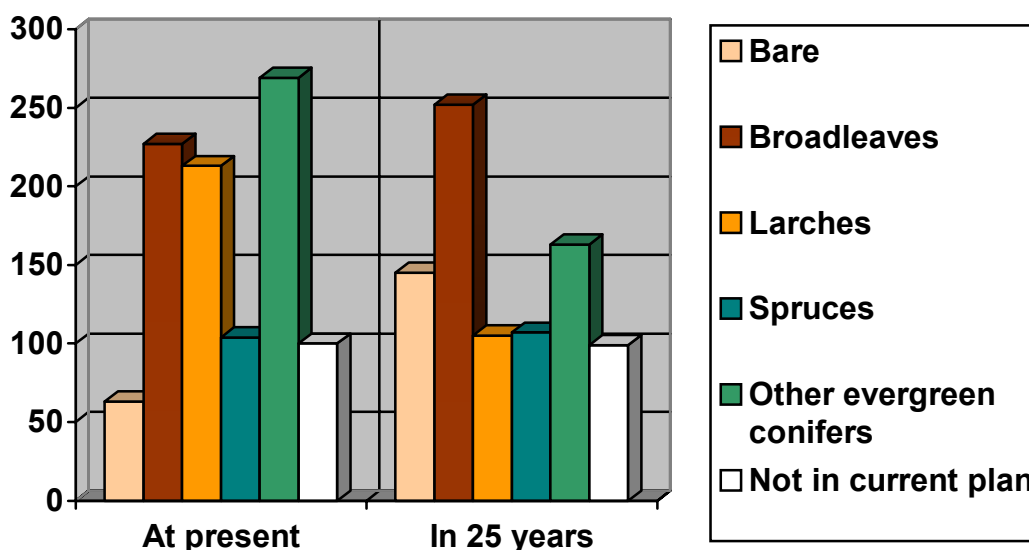
UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

5.6.22 Where areas are managed as continuous cover, natural regeneration will be encouraged, but if this fails or is inadequate, replanting of species suitable for the site and management objectives will be carried out.

5.6.23 Local provenance seed source for oak has been collected from an ancient woodland site within the Upper Derwent Valley and an annual collection programme is established, with trees being grown on for restocking priority restoration areas identified within the PAWS survey.

5.6.24 The following chart – an excerpt from STW's 20 Year Forest Plan – depicts the anticipated change in the balance of species which make up the valley's woodland over the next 25 years. This reflects the STW Plans but the plans for other areas are, if anything, more ambitious. Considerable additional areas will be converted from coniferous to broadleaved woodland or open habitats in FC woodlands on adjacent land, including considerable areas in Westend, Lockerbrook and further significant areas in the Woodlands and Alport Valleys.

Changes in Species Composition Resulting From Implementation of the Forest Plan



5.7 Boundaries, Edges and Open Space

5.7.1 This Conservation Management Plan offers opportunities to add diversity to woodland fringes by varying the age structure and reshaping boundaries. Many of the outer boundaries of woodland form an abrupt line between woodland and open hill. In these areas plantation edges will be re-shaped and re-structured as felling and replanting progress, to create a more graded edge and to improve integration between the plantations and adjacent woodlands or open habitats.

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

- 5.7.2 Internal woodland boundaries will also be improved, for example along access routes and way-leave corridors, by introducing open glades and varying the shape and species composition of woodlands fringing the most visually prominent margins. For example, the species pattern on the southern slopes of Ladybower is somewhat unnatural in appearance, particularly where angular shaped stands of larch have been planted amongst other conifers. Felling and replanting will provide the opportunity to re-structure this boundary to break up the current abrupt transition.
- 5.7.3 Forest roads, rides, streamsides and other open spaces, collectively function as important open habitat corridors within woodlands. Opportunities will also be taken during felling and other management operations, to improve the habitat structure of woodland rides and footpaths. Selective lengths of ride will be widened or varied in profile, to provide a more graded woodland edge. Re-stocking alongside main access rides and paths will include a higher proportion of broadleaved trees and shrubs to create varied woodland edge habitats to favour songbirds and other woodland flora and fauna.
- 5.7.4 The objective will be to produce a chain of irregular open spaces of natural appearance with contrasting groups of native broadleaves or conifers where appropriate. Any mature trees with well balanced crowns (especially broadleaved trees amongst conifer crops) will be retained and crop trees removed to allow sufficient space for the crown to develop unimpaired.
- 5.7.5 Edges in woodland with a significant open component (e.g. upland heathland) will be set back at restocking to establish habitat linkages at appropriate locations.
- 5.7.6 Before tree planting takes place in existing open space, the habitat will be carefully assessed and only planted if it is not of significance for other interests – including the value of its existing habitats or archaeological interests.

5.8 Invasive Species

- 5.8.1 Severn Trent Water and other managers operate policies for control of invasive species. For STW, this includes an active rhododendron management program. The main control mechanisms employed include mechanical flailing in the most accessible areas, to reduce large groups of bushes to stumps. Herbicide is then applied to any re-growth and smaller bushes with smaller seedlings being removed manually. Areas to be targeted are prioritised according to factors such as likelihood of encroachment onto adjacent SSSI moorland.
- 5.8.2 Occasionally, such invasive species can support features of value. For example, red breasted merganser is known to nest in rhododendron on the margins of Howden reservoir. Any clearance in these circumstances should ensure that work is not undertaken during the nesting season and that there are alternative suitable nesting sites in native scrub on the reservoir margins.

5.9 Scarce and Protected Species

- 5.9.1 The Upper Derwent Valley is well known as a key habitat for a number of species of birds of prey. Goshawks first bred in the area in 1966 and it was the first place in the Peak District to which peregrines returned to breed regularly in 1981. Both these species have been the subject of intensive study and protection in the Upper Derwent in recent years.
- 5.9.2 Peregrines nest on cliffs or occasionally on very steep open slopes. Proposals will take into account known nesting sites to avoid creating new woodlands in locations which would reduce the availability of peregrine nesting habitats.
- 5.9.3 Goshawks nest in mature woodland and favour larch and other coniferous plantations in the Upper Derwent. Felling and other potentially disturbing operations will be planned to take account of goshawk nesting requirements and to minimise disturbance to nesting birds. Foresters are recommended to leave an area of at least 5 hectares of standing timber around the nest sites and to impose a 400m disturbance-free radius around occupied nests during February-July inclusive. Most goshawk nest sites should be retained beyond the normal rotation length but, if a nest site has to be felled (outside the breeding season), an available alternative site should be ensured. (Petty 2004?)

Key Points for managing woodlands with nesting goshawks
<ul style="list-style-type: none">• Locate nesting areas• Plan to retain most nesting areas beyond normal rotation age• Retain at least 5 ha of timber around each nesting area• Select suitable replacement nesting areas if existing ones are to be clear/felled• Establish 400m radius disturbance-free zones around occupied nesting areas.

- 5.9.4 Further guidance is available from the Forestry Commission (Petty 1989, 1996).
- 5.9.5 A population of water vole is known to be supported in the streamside pastures of the Alport Valley and the species is likely to occur elsewhere along the main Derwent and Woodlands Valleys. The Plan aims to ensure that these habitats remain open and undisturbed, and suitably managed to maintain adequate habitat for the maintenance and expansion of existing water vole populations.
- 5.9.6 Other scarce or notable species include a range of bird species breeding and feeding in the woodlands and scrub, on reservoirs and streams and other nearby habitats, including the important open moorlands. Bats also occur, roosting in trees and possibly in nearby buildings. Badgers are also found throughout the valley.
- 5.9.7 The Plan and its implementation will take full account of these species interests. Appropriate surveys will be undertaken to inform management works, to ensure that the conservation interests of protected and scarce species are given due prominence. Where appropriate, the programming, timing or detailed specification of management

**UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006**

works will be tailored to take these interests into account. Wherever possible, management works will be designed to enhance the value of the Valley's woodlands and associated habitats for these species.

6. MANAGEMENT PROPOSALS AND PROJECTS

6.1 Conservation Management Proposals

- 6.1.1 The Conservation Management Plan New Native Woodland map presents a long term vision for the Upper Derwent woodland landscape. The map illustrates the thinking behind the proposals for the future of the Upper Derwent Valley's woodlands. This vision will not be achieved overnight, or even in the next decade or two. The following schedule of management projects present the initial stages of the overall implementation of this Vision. It includes projects which will be implemented over the first 10 years of the plan.
- 6.1.2 The New Native Woodlands Plan will be accompanied by additional plans to show the anticipated felling and replanting works over the first 10 years.
- 6.1.3 Below are listed some of the proposed future conservation and regeneration projects for the Upper Derwent Valley. Funding will be required to implement these plans.

Conservation Management Plan Proposals

Planning and monitoring works for conservation
1. Ecological survey work
2. Biological monitoring
3. Bracken management plan
4. Grazing management plan for key woodland / moorland edge compartments
Conservation and management activities for woodland regeneration projects;
5. Felling works (refer to section 6 for detail)
6. Restocking works (refer to section 6 for detail)
7. Tree protection works
8. Tree establishment and maintenance
9. Thinning works (refer to section 6 for detail)
10. Control of bracken
11. Production of native plants from local seed sources
12. Walling works
13. Fencing works
14. Create rides, glades and viewpoints in conifer plantations
Conservation and management activities for archaeological heritage projects;
15. Assessment of buried archaeological prehistoric artefact resource
16. Accessing and assessing the charcoal burning industry
Building improvement projects
17. Ashopton Sawmill – creation of new workshop training centre and office

**UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006**

18. Alport Gillot Barn restoration
19. Alport Hucklow Lees Barn restoration
20. Alport Scout Hut
21. Hagglee Barn restoration
22. Ashopton Sawmill – creation of new workshop training centre and office
23. Conversion of existing buildings to be DDA compliant (eg St Henry's)
24. Investigate possible future uses for Wellhead to meet access and audience development objectives

UPPER DERWENT VALLEY WOODLANDS: CONSERVATION MANAGEMENT PLAN 2006

REFERENCES

Working with the grain of nature – a biodiversity strategy for England. DEFRA, 2000.

Regional Environment Strategy, Objectives and Policies – Regional Assembly 2002

Regional Planning Guidance (RPG8) – Government Office for the East Midlands

Biodiversity Strategy for the East Midlands (unpublished) - EMR Biodiversity Forum

UK Biodiversity Action Plan. HMSO, 1994

Woodland Bird Targets in English Regional Forestry Frameworks - Forestry Commission and RSPB, 2004

Ancient Trees in the UK, securing Their Future - Woodland Trust and Ancient Tree Forum, 2004

Petty, S. (Forest Research) 2004. *Goshawks in the English/Scottish borders, past, present and future*. BTO Regional Conference on Woodland Birds.

Petty, S. 1989 *Goshawks: their status, requirements and management*. Forestry Commission Bulletin 81. HMSO.

Petty, S, 1996 *Reducing disturbance to goshawks during the breeding season*. Forestry Commission Research Information Note 267. HMSO

Continued:

**UPPER DERWENT VALLEY WOODLANDS:
CONSERVATION MANAGEMENT PLAN 2006**

National Trust WGS application	2004	NT
Upper Derwent leaflet	2004 reprint	All
Ashopton Sawmill Sit, Ladybower Feasibility Study. Final report.	Jan 2004	WWT
Woodland Grant Scheme. Grants for planting trees & looking after woodlands. Contract documents		FC
High Peak Estate. Resource book for teachers	2002	NT
Draft Upper Derwent Local Interpretive Plan	Nov 2000	PDNPA
Upper Derwent Valley: Summary of achievements		PDNPA
Derwent Valley Heritage Way		Derwent Valley Trust
Peak Connections Bus & Train guides/timetables		
NVC Survey of FC Ancient Woodland Sites in the Derwent Valley	1999	FC
Alport Valley Forest Design Plan	2002	FC
Snake Woodlands Forest Design Plan	2003	FC
Upper Derwent Forest Design Plan	2002	FC
National Trust High Peak Estate Learning plan 2005-7	2005	NT
The Upper Derwent Valley – 10,000 years in a Peak District Valley	2004	Bill Bevan
UD Badger Survey - High Peak badger group	1992	STW
UDV Interpretation Plan - Scenesetters	1993	STW
STW Woodland valuation - John Cleggs and Co	1998	STW
Upper Derwent Woodland Flush Survey	1990s	PDNPA
STW WGS agreement - Forestry Commission	1993	STW
NT Biosurvey	2005	NT

Appendix

Maps

- Map 1: Land Ownership
- Map 2: Conservation Designations
- Map 3: Existing Woodland Habitats
- Map 4: Vision Map
- Map 5: Design Concept
- Map 6: New Native Woodlands
- Map 7: Felling Proposals

AADP

- Map 1: Access Improvements – Proposed routes