

Tunbridge Wells Local Biodiversity Action Plan

Part 2 –
Proposed Actions
October 2008

INTRODUCTION

This part of the Local Biodiversity Action Plan (LBAP) sets out the overall Objectives and Actions of the Plan to support the LBAP as a whole as well as specific Objectives and Actions for each of the identified habitats. All will be reviewed annually by the LBAP Steering Group to monitor progress and consider changes with a full review of the whole plan in 5 years. The Actions are naturally focused on the works of Tunbridge Wells Borough Council and its close partners but should not be seen as exhaustive and will compliment work being carried out elsewhere by the Council and others. It is hoped that the actions and partners listed will expand as the partnerships strengthens overtime but it is not the intention of this plan to list all actions of all partners. The Actions proposed should be taken as a guide only and should not prevent the Council or partners taking advantage of unforeseen opportunities that support the habitat objectives or other wider biodiversity objectives.

A number of Actions have very specific targets or are part of ongoing work but some are indicative of potential future projects being dependant upon internal and/or external funding or partnership projects but can also be used to influence others. These potential future projects will be actively investigated during the coming year to see if they can be turned into specific actions.

Mapping is provided for some habitats under **Detailed Habitat Information** but this is provisional only as much of the data is incomplete or requires more detailed investigations. One of the objectives for the LBAP is to improve the level of detail and accuracy of mapping for the identified habitats.

Aim of the Plan

To conserve, protect and enhance the biodiversity
of Tunbridge Wells Borough
for current and future generations.

For further information contact:
David Scully
Landscape and Biodiversity Officer
Tunbridge Wells Borough Council
Town Hall
Royal Tunbridge Wells
Kent TN1 1RS
01892 526121
david.scully@tunbridgewells.gov.uk
www.tunbridgewells.gov.uk

CONTENTS

1.0 Objectives and Actions of the Plan

2.0 Habitat Specific Objectives and Actions

One:	Lowland Meadow
Two:	Lowland Dry Acid Grassland
Three:	Lowland Heath
Four:	Built Up Areas and Gardens
Five:	Hedgerows
Six:	Lowland Wood Pasture and Historic Parkland
Seven:	Rocky Outcrops
Eight:	Gill Woodland

3.0 Monitoring and Review

4.0 Contacts

5.0 Detailed Habitat Information

KEY TO ABBREVIATIONS:

TWBC	– Tunbridge Wells Borough Council
TWBP	– Tunbridge Wells Biodiversity Partnership
KHWP	– Kent High Weald Partnership
KWT	– Kent Wildlife Trust
High Weald AONB Unit	– (Area of Outstanding Natural Beauty)
KMBRC	– Kent And Medway Biodiversity Records Centre
KBP	– Kent Biodiversity Partnership
WMI	– Weald Meadows Initiative
FC	– Forestry Commission
RSPB	– Royal Society for the Protection of Birds
BTCV	– British Trust for Conservation Volunteers
NE	– Natural England
PC	– Parish Council
FWAG	– Farming and Wildlife Advisory Group
EA	– Environment Agency
NT	– National Trust
WT	– Woodland Trust
LCG	– Local Community Groups (e.g. Friends of Woodbury Park Cemetery)
LRG	– Local Recorder Groups (e.g. Kent Bat Group)
LocalView	– Councils Web based Geographical Information System

1.0 OBJECTIVES AND ACTIONS OF THE PLAN

Objectives of the Plan

- To identify habitat and species that are of national and local importance in Tunbridge Wells borough.
- To improve our knowledge of what habitats and species we have, their current condition, the extent and population.
- To identify threats and opportunities to habitats and species within the borough.
- To develop targets and actions to protect and enhance the biodiversity Tunbridge Wells borough.
- To form and maintain Tunbridge Wells Biodiversity Partnership (TWBP) to bring together all action taking place for biodiversity in Tunbridge Wells borough.
- To increase public understanding and awareness of biodiversity and to encourage participation in conservation work.
- To promote the long-term protection and enhancement of biodiversity in Tunbridge Wells borough and in particular to promote environmental education within the borough's schools.
- To target biodiversity action to enable biodiversity to adapt to climate change.
- To raise understanding and awareness of biodiversity conservation within the Council and ensure that the Council has regard to the purpose of conserving biodiversity in all its actions.

Proposed Actions and Targets

No	Actions	Who	Targets
1.	Develop a strategy for promoting biodiversity across the Council and raising awareness of biodiversity duty under NERC Act.	TWBC	Strategy approved by December 2009
2.	Raise public awareness through consultation on this document seeking input to actions and habitats.	TWBC/KHWP	September 2009
3.	Raise awareness through Green Action (Environmental Education) and Volunteering for conservation work.	TWBC/KHWP/ High Weald AONB Unit	Annually
4.	Raise awareness through Environmental Green Forum Partnership	TWBC	Quarterly?
5.	Raise awareness and encourage local activities/volunteering on the Council's Local Nature Reserves and other nature conservation sites.	TWBC/ KHWP/LCG/KW T/LRG/NE/FC	Annually
6.	Support the Eco Schools and Green Action Scheme	TWBC/KHWP/F C/KCC	April 2010
7.	Include LBAP information in Landowner advice given by TWBC and partners	TWBC/KHWP/ High Weald AONB Unit	December 2009
8.	Incorporate LBAP Objectives into Green Infrastructure (GI) project.	TWBC/NE	October 2010
9.	Ensure that strategic and local plans include policies to protect and enhance LBAP habitats	TWBC	Development Control Policies DPD April 2010
10.	Continue to Identify and map existing LBAP habitats and areas for extension and/or increased habitat connectivity and incorporate this information and opportunities into Green Infrastructure (GI) policy.	KWT/KBP/ NE/High Weald AONB Unit	Accurate habitat mapping for all habitats by 2012
11.	Ensure all collated data is shared with appropriate partners, e.g. KMBRC	ALL	Ongoing
12.	Encourage and support local community to become actively involved in conservation management.	KHWP/BTCV/T WBC/LCG/KWT /LRG/NE/FC	Ongoing
13.	Publish available LBAP habitat mapping data on Councils Web site through LocalView	TWBC	March 2010
14.	Agree programme of review of Council owned land for LBAP habitats and review management regimes to ensure existing habitats are protected and enhanced and that any opportunities for habitat restoration are identified.	TWBC/KWT/KH WP/LCG	March 2010

2.0 HABITAT SPECIFIC OBJECTIVES AND ACTIONS

Habitat Action Plan One: Lowland Meadow

Action Plan Objectives

- Halt the loss of species-rich grassland
- Restore, maintain and enhance species-rich grassland (200 hectares, sites not all verified)
- Increase the overall extent of lowland meadows and reduce habitat fragmentation, i.e. adjacent to existing meadows
- Improve habitat connectivity on a landscape level
- Create, where appropriate, new species-rich grassland, i.e. on historical sites

Proposed Actions and Targets

No	Actions	Who	Targets
1.	Encourage appropriate grazing regimes and hay cutting mechanisms by supporting High Weald Unit	High Weald AONB Unit	Ongoing
2.	Encourage landowners to seek advice from the WMI for advice/events/training.	KHWP/High Weald Unit	Ongoing
3.	Where appropriate, seek restoration to lowland meadows from arable as conditions of planning	TWBC Planning	Ongoing
4.	Raise awareness of habitats amongst owners of historic parks and gardens using data from recent Historic Parks and Gardens Project	TWBC/NE/NT	March 2010

Habitat Action Plan Two: Lowland Acid grassland

Action Plan Objectives

- Halt the loss of acid grassland
- Restore, maintain and enhance acid grassland
- Increase the overall extent of acid grassland and reduce habitat fragmentation, i.e. adjacent to existing meadows
- Improve habitat connectivity on a landscape level
- Create, where appropriate, new acid grasslands, i.e. on historical sites

Proposed Actions and Targets

No	Actions	Who	Targets
1.	Encourage appropriate grazing regimes and hay cutting mechanisms by supporting High Weald Unit	High Weald AONB Unit	Ongoing
2.	Encourage landowners to seek advice from the WMI for advice/events/training.	KHWP/High Weald Unit	Ongoing
3.	Where appropriate, seek restoration to acid grassland from arable as conditions of planning	TWBC Planning	Ongoing
4.	Raise awareness of habitats amongst owners of historic parks and gardens using data from recent Historic Parks and Gardens Project	TWBC	March 2010

Habitat Action Plan Three: Lowland Heath

Action Plan Objectives

- Halt the loss of areas of heathland
- Achieve favourable management of heathland
- Maintain and enhance existing heathlands
- Actively seek opportunities to extend the existing heaths
- Create new areas of heathland where appropriate
- Improve habitat connectivity on a landscape level

Proposed actions and targets

No	Actions	Who	Target
1.	Support a low grazing network to ensure the sustainability of the future management of the heaths	FC/High Weald AONB Unit/RSPB/TWBC/KHWP/LR G	Possible future project
2.	Support Partner projects in heathland work. E.g. Forest Ridge Project	FC/High Weald AONB Unit/RSPB/TWBC/KHWP/LR G	Ongoing

Habitat Action Plan Four: Built up Areas and Gardens

Action Plan Objectives

- Maintain and enhance the current extent of natural and semi-natural habitats within built up areas and gardens
- Actively involve the local community in safeguarding their local environment
- Actively seek opportunities to extend and improve green areas to improve habitat connectivity, particularly on a landscape level
- Ensure that biodiversity is firmly embedded in the planning process and other borough strategies, policies

Proposed actions and targets

No	Actions	Who	Target
1.	Continue to support of the Gardening for Wildlife Scheme with Borough Awards	KWT/KHWP/TWB C	KHWP Award ceremony October 2009
2.	Actively seek opportunities to include green roofs, walls, etc in the planning process and TWBC Estate including training on Green Roofs for Development Control Officers.	TWBC	Training by December 2009 and Ongoing
3.	Creation and implementation of a Tree Strategy, with particular emphasis of increased connectivity between habitats, spatial planning for adaptation to climate change	TWBC/KCC/LCG	Possible future project.
4.	Promote biodiversity in urban areas as a cross-cutting agenda item, e.g. working with the health agenda and Love Where We Live campaign.	TWBC	Part of Corporate Strategy to be agreed by December 2009
5.	Support local communities, schools, parish councils, allotment groups etc in managing their green spaces	TWBC/KHWP/PC/ LCG	Ongoing

Habitat Action Plan Five: Hedgerows

Action Plan Objectives

- Halt the loss of ancient/species rich hedgerows
- Encourage favourable management of all hedgerows
- Create new local native hedgerows in appropriate areas, targeting habitat connectivity

Proposed actions and targets

No	Action	Who	Target
1.	Encourage the planting of new species-rich hedgerows using native plants and management of existing hedgerows.	TWBC/KHWP/High Weald Unit/FWAG/BTCV	Ongoing
2.	Support the 2009 Kent Free Tree Scheme which provides native plants for hedgerows.	KCC/KHWP/TWBC	Report on completed Scheme December 2009

Habitat Action Plan Six: Lowland Wood Pasture and Historic Parkland

Action Plan Objectives

- Halt the loss and degradation of historic parkland and pasture woodland
- Achieve favourable conservation condition of all historic parkland and pasture woodland
- Create new areas of habitats, where appropriate, focusing on diminishing fragmentation

Proposed actions and targets

No	Action	Who	Target
1.	Raise awareness of habitats amongst owners of historic parks and gardens using data from recent Historic Parks and Gardens Project	TWBC/NE/NT	October 2009
2.	Identify Veteran trees and raise awareness of importance of Veteran trees for biodiversity and promote good management	KCC/TWBC/KHWP /BTCV/NE	Possible future project.

Habitat Action Plan Seven: Rocky outcrops

Action Plan Objectives

- Identify and assess the distribution extent and current quality of this unique habitat
- Manage human activities, which may cause damage to significant sandstone outcrops
- Halt the loss and degradation of significant rocky outcrops
- Maintain the extent of gill rocky outcrops
- Achieve favourable conservation condition of all significant rocky outcrops

Proposed actions and targets

No.	Action	Who	Target
1.	Raise awareness through education and interpretation, etc. as to why rocky outcrops are important, with main focus on the popular tourist attractions	TWBC/English Heritage/Commons Conservators/High Weald Unit	Possible future project.
2.	Inventory and assessment of all significant rocky outcrops in the borough and specific action plan to address condition, species specific and climate changes issues.	TWBC/English Heritage/Commons Conservators/High Weald Unit/KWT /KBP/LRG	Possible future project.

Habitat Action Plan Eight: Gill Woodland (wet woodland)

Action Plan Objectives

- Identify and assess the distribution extent and current quality of this unique habitat
- Halt the loss and degradation of gill woodland
- Maintain the extent of gill woodlands
- Encourage favourable conservation condition of all gill woodlands
- Improve habitat connectivity
- Ensure the requirements of all priority species associated with gill woodlands are met

Proposed actions and targets

No.	Action	Who	Target
1.	Investigate and report on the volume and quality of water flow in gill woodland, looking at both water abstraction and reduced rainfall.	EA/ TWBC/ NE/FC	Possible future project.
2.	Encourage sensitive and sustainable management of gill woodland through recognition of rare plant communities surviving in a unique microclimate.	TWBC/KH WP/High Weald Unit/NE/FC/ LRG	Ongoing

3.0 MONITOR AND REVIEW

Description

To fulfil its purpose the Biodiversity Action Plan must be a 'living document' that is flexible and easy to update. It will therefore be necessary to review and amended the Action Plan on a regular basis. This will ensure that any new data and information can be incorporated into the Plan as soon as possible, completed actions can be removed and new actions proposed.

Regular review will be carried out by Officers of the Council supported by the Tunbridge Wells Biodiversity Partnership (TWBP). Periodic review will include a public engagement exercise and will include project reviews and public feed back during the life of the plan.

Objectives

- Monitor the actions set out in the Plan on a regular basis
- Update the actions set out in the Plan on a regular basis
- Review the whole Plan on a periodic basis

Proposed action and targets

No.	Actions	Who	Target
1	Monitor the actions carried out and completion of targets on a annual basis	TWBP	Annually
2	Update the project, actions and targets on an annual basis	TWBP	Annually
3	Carry out a review of the complete Action Plan every five years	TWBP	First review in 2013

4.0 CONTACTS

Contacts invited to input into, or comment upon, draft document

Advisory role/landowners and/or managers:
Biological Records Centre
BTCV (pond wardens)
Environment Agency
English Heritage for historic sites
English Landscapes (park and cemetery management)
English Nature
Farming and Wildlife Advisory Group
Friends of Dunorlan Park
Forestry Commission
Kent County Council
Kent Field Club
Kent Highways
Kent High Weald Project re Local Nature Reserves
Kent Wildlife Trust
High Weald Unit (Heathland Initiative and Meadows)
Local recording groups (Bat Group, Mammal Group, Kent Butterfly Conservation)
National Trust
Neighbouring authorities
Parish and Town Councils
Rusthall and Tunbridge Wells Commons Conservators/ & Friends of
RSPB
Southern Water
Till Hill (woodland management)
Woodland Trust
Bewl Water
Mid Kent Water
Schools
Tunbridge Wells/South East England Tourist Board

Borough Council officers involved with document development

Karen Rigby-Faux, Environmental Sustainability Co-ordinator
David Scully, Landscape and Biodiversity Officer
Ian Beavis, Museum Technical Officer
Marian Williams, Strategy and Projects Officer
Alan Legg, Principal Design & Heritage Officer
Ann Turner, Allotment Officer
Peter Every, Technical Officer
Councillor Elizabeth Thomas, Portfolio Holder, Planning and Economic Development

Members of Tunbridge Wells Biodiversity Partnership

RSPB, Area Manager, Martin Allison
Kent Wildlife Trust (KWT), Head of Conservation, Richard Moyse
Kent Wildlife Trust (KWT), Senior Conservation Officer, David Hutton
Environment Agency, Biodiversity Team Leader Clare Munday
Kent High Weald Project (KHWP), Manager, Jason Adams
High Weald AONB Unit, Director, Sally Marsh.

National Trust, Johnathan Light
Forestry Commission, Kent and East Sussex Woodland Forum, Jonathan Harding
Kent County Council, LBAP Coordinator, William Moreno
Kent Biological Records Centre, Records Centre Manager, Dr Hannah Cook
Woodland Trust, Western Area Manager, Sandy Williamson

References

Borough Council documents for cross-referencing:

Sustainable Community Plan 2006-2011
Environment Strategy 2005
Cultural Strategy 2004
Local Plan (adopted 2006)/Local Development Framework
Borough Landscape Character Area Assessment 2002
Landscape and Nature Conservation 2002

External documents

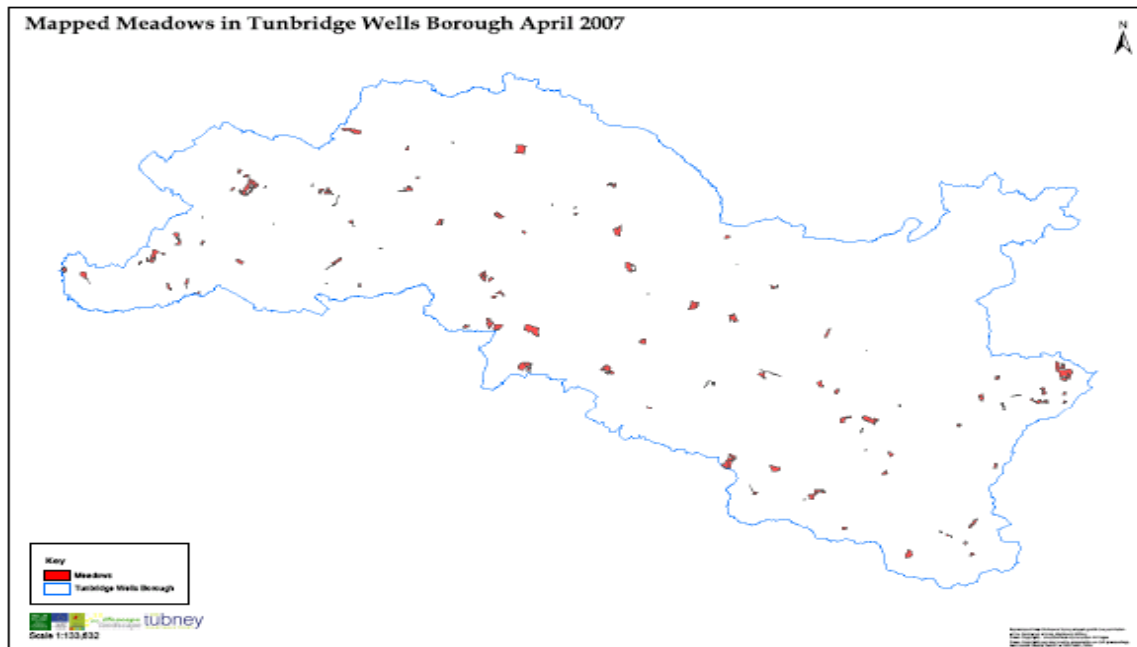
UK BAP
Kent BAP 2005 (full review)
Phase I Habitat Survey for Kent
The High Weald AONB Management Plan 2004

5.0 DETAILED HABITAT INFORMATION

One:	Lowland Meadow
Two:	Lowland Dry Acid Grassland
Three:	Lowland Heath
Four:	Built Up Areas and Gardens
Five:	Hedgerows
Six:	Lowland Wood Pasture and Historic Parkland
Seven:	Rocky Outcrops
Eight:	Gill Woodland

DRAFT

Habitat Action Plan One: Lowland Meadow



Habitat description and current status

High quality neutral grasslands are often dominated by species-rich grasses characterised by sweet vernal, crested dog's tail, bents, fescues and adder's tongue fern. The diverse range of flowering plants, however, is what signifies this habitat as intrinsic to our ancestors, giving us a whisper of our heritage. These include flowers such as orchids, oxeye daisy, pepper saxifrage and dyer's greenwood. As these grasslands are so species-rich, they are very significant as foraging areas for reptiles, amphibians, small mammals, bats and birds. The decline of extent and status of this important habitat is closely linked with decline in population of invertebrate species, in turn affecting the extent of foraging available for the aforementioned species.

In line with the KLBAP, lowland meadows include land cut for hay, unimproved and neutral grassland and pasture. Significantly, the majority of these grasslands that are left (over 97% nationally lost since the 1930s) are in the High and Low Weald. Small fields, linked hedgerows and copses all contribute to creating high-quality neutral grassland habitat, characteristic of our borough's landscape today.

Extent of habitat

Grassland Area	Ha
Grassland	7.08
Improved	8.68
Semi-improved	37.62
Unimproved	38.13

Grand Total	91.51
-------------	-------

Figures and sites based on meadows that have verified boundary data.

Grassland Sites	Ha
Barnett's Wood LNR	5.33
Beston Farm Pastures and Orchard SNCI	17.92
Bidborough Woods & Pasture SNCI – Brookhurst Field	2.63
Brake bank Meadow, Tudeley Woods	2.3
Finchcocks Lodge – Meadow	2.79
Five Acre Field	2.04
Hall House Meadows	6.7
Hole Park Estate	7.08
Lea Farm	7.78
Old Swan Farm SNCI	7.08
Owls Castle Farm	9.7
Shepherds Lodge Vineyard	10.25
Southborough Cemetery SNCI	3.25
St Peter's Old Church SNCI	0.49
Staces	1.52
The Paper Mill	2.23
Trafford Farm	1.59
White Chimney Wood SNCI	1.73
Grand Total	91.51

Seed Harvest Sites	Ha
Bentham Farm Oast	4.08
Shepherds Lodge Meadow	10.25
Grand Total	14.33

Threats to habitat

- Development
- Agricultural improvement, e.g. re-seeding, artificial fertiliser
- Lack of management, e.g. cessation of traditional and cutting regimes
- Overgrazing/undergrazing
- Lack of awareness of this important habitat for biodiversity
- Pollution and climate change
- Invasive species, particularly non-native

Current action in Tunbridge Wells

- Wealds Meadows Initiative Officer based at the High Weald AONB Unit since 2001
- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a living landscape officer by KWT in 2008 to improve habitat connectivity
- Weald Native Seed (WNOS) is harvested from species-rich wildflower grasslands
- Management Plan implementation for Barnett's Wood LNR (TWBC/KHWP)

- TWBC has embarked on a Green Space Strategy, which involves spatial habitat planning within the borough (planning for climate change)
- Lowland meadows targeted by Natural England under the Environmental Stewardship Scheme
- GAP (Grazing Action Project) helps and advises the grazing of conservation sites throughout Kent
- Butterfly Conservation has carried out butterfly surveys in meadow sites, with a particular focus on UK Biodiversity Action Plan (BAP) Priority Species

The relevant UK Habitat Action Plans:

Lowland Acid Grassland: <http://www.ukbap.org.uk/UKPlans.aspx?ID=14>

Lowland Wood-Pasture Parkland: <http://www.ukbap.org.uk/ukplans.aspx?id=58>

Coastal and Flood Plain Grazing Marsh

The relevant UK Species Action Plans:

Skylark, *Alauda arvensis* <http://www.ukbap.org.uk/UKPlans.aspx?ID=80>

The relevant Kent Habitat Action Plans:

Lowland Wood Pasture & Parkland

Mixed Broadleaved Woodland & Plantations on Ancient Woodland Sites

Coastal and floodplain grazing marsh

Habitat Action Plan Two: Lowland Acid grassland

Habitat description and current status

Acid grassland occurs on acid rocks such as sandstones and superficial deposits such as sands, gravels and peat. Lowland acid grassland is usually found within mosaics of other habitats such as lowland heaths, mire communities and parkland, all of which are increasingly rare in Kent. High-quality, acid grassland is more commonly found on larger sites, which are maintained by appropriate grazing. Characteristic species include common bent, sheep's sorrel, heath bedstraw and tormentil (Kent Biodiversity Action Plan, 1997).

Extent of habitat

Due to the underlying sandstone and clay through Tunbridge Wells, fragments and areas can be found scattered throughout the borough:

Southborough Town Common
Tunbridge Wells Common
Rusthall Common
Woodbury Park Cemetery
Hawkenbury Borough Cemetery
Barnett's Wood Local Nature Reserve
Brenchley Woods
Cinderhill Community Woodland
Pembury and Marshley Harbour Heath

Please see figures in habitat action plan one and three for further borough known acid grassland sites where figures have currently been amalgamated.

Threats to habitat

- Development, e.g. housing, road-building, hospitals
- Agricultural improvement, e.g. re-seeding, artificial fertiliser
- Lack of appropriate management, e.g. cessation of traditional and cutting regimes
- Overgrazing/undergrazing
- Lack of awareness of this important habitat for biodiversity
- Invasion of invasive species, particularly non-native
- Pollution and climate change

Current action in Tunbridge Wells

- Wealds Meadows Initiative Officer based at the High Weald AONB Unit since 2001
- Engagement of a Living Landscape officer by KWT in 2008 to improve habitat connectivity
- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Weald Native Seed (WNOS) are seeds harvested from local species-rich wildflower grasslands

- Heathland restoration schemes within the borough (see Habitat Action Plan Three) are likely to be benefiting acid grassland
- Acid Grassland is targeted under Natural England's Environmental Stewardship Scheme
- Management Plan implementation for Barnett's Wood LNR (TWBC/KHWP)
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)
- Southborough Common Creation Scheme (STC)
- GAP (Grazing Action Project) helps and advises the grazing of conservation sites throughout Kent
- Butterfly Conservation has carried out butterfly surveys in meadow sites, with a particular focus on UK Biodiversity Action Plan (BAP) Priority Species
- Tunbridge Wells and Rusthall Commons Conservators implementing KWT Management Plan

The relevant UK Habitat Action Plans:

Lowland Acid Grassland <http://www.ukbap.org.uk/UKPlans.aspx?ID=14>

Lowland Wood-Pasture & Parkland <http://www.ukbap.org.uk/ukplans.aspx?id=58>

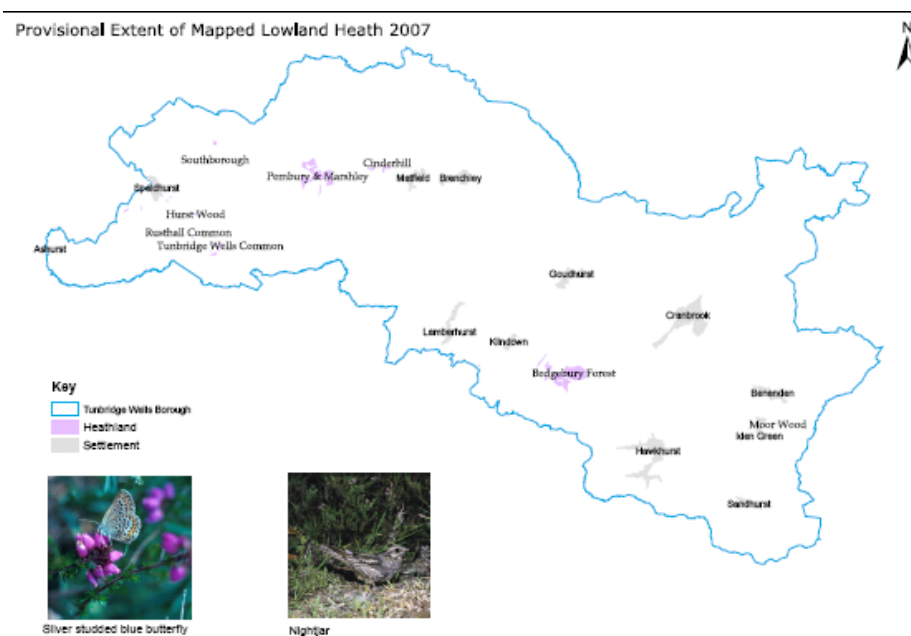
The relevant UK Species Action Plans:

Skylark, *Alauda arvensis* <http://www.ukbap.org.uk/UKPlans.aspx?ID=80>

The relevant Kent Habitat Action Plans:

Lowland Wood-Pasture & Parkland Mixed Broadleaved Woodland & Plantations on Ancient Woodland Sites

Habitat Action Plan Three: Lowland Heath



Lowland heathland is characterised by the presence of plants such as heathers (*Calluna vulgaris*, *Erica cinerea* and *E.tetralix*) and gorse (*Ulex spp.*), and is generally found below 300m altitude. It should ideally contain a mosaic of heather of different ages, some scattered trees and scrub, areas of bare ground, wet heath, bog and open water. There are a number of birds, reptiles, invertebrates, plants, bryophytes and lichens that are characteristic of this habitat (Kent Biodiversity Action Plan, 1997).

Habitat description and current status

Heathland includes a variety of vegetation types in which low-growing ericaceous shrubs such as heather, *Calluna vulgaris*, make up a significant proportion of the vegetation cover. Kent has lost 97% of heathland in the last two hundred years. We are lucky enough to have one of the two significant tracts in the borough at Pembury and, since the restoration project has begun at Pembury, the Dartford Warbler has returned to over-winter, indicating how positive management can encourage these rare species to frequent our borough again.

Heathland provides important habitats for several rare and scarce plants & animals, as well as a large number of locally rare and common species that are dependent on this type of habitat for their survival. Examples of species that use heathland for breeding and/or feeding include skylark, meadow pit, Dartford warblers, stonechat, adders and sundew.

Extent of habitat

Heathland area	Ha.	Comments
----------------	-----	----------

Bedgebury Forest and Pinetum	76.6	Restoration
Brenchley Wood (Kent Wildlife Trust)	1.2	Restoration
Cinderhill (Kent High Weald Project)	2.4	Restoration
Horse Pasture	3.1	
Hurst Wood (Woodland Trust)	0.7	
Moor Wood	0.5	
Pembury Heath (RSPB)	53.5	Restoration
Rusthall Common	0.8	
Southborough Common	0.9	
Tunbridge Wells Common	5	Restoration
Unknown	5.9	
Grand Total	150.6	

These figures are based on actual mapped rather than potential

Split of habitat	Ha
Acid grassland	19.0
Open heath	68.7
Wooded heath	62.9
Grand Total	150.6

Threats to habitat

- Fragmentation and isolation is an issue due to losses in the past
- Lack of management leading to scrub/tree encroachment
- Agricultural improvement
- Inappropriate management, including over-grazing
- Invasion of invasive species, particularly non-native
- Development pressures
- Pollution and climate change
- Increased visitor pressures, leading to disturbance of sensitive species
- Fly-tipping, motorbikes, vandalism and burning are all human pressures
- Public perception of restoration projects (trees off heaths, grazing, etc)
- Ancient woodland designation, virtually all of Kent's "lost" heath will be designated ancient woodland making it challenging to restore under current policies. This is the biggest threat to restoring heathlands in South East England.

Current action in Tunbridge Wells

- Engagement of a Living Landscape Officer by KWT in 2008 to improve habitat connectivity
- TWBC is a members of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Ongoing restoration project at Pembury Heath (part of Tudeley Woods, RSPB)

- Ongoing restoration project at Cinderhill Community Woodland (KWT, KHWP & Brenchley Parish Council)
- Ongoing restoration project at Brenchley Wood (KWT)
- Rusthall Common project following KWT Management Plan (Common Conservators)

- A five-year Heathland Initiative Scheme administered by the High Weald AONB Unit, finished in 2006, which identified key heathland sites in the borough and brought three back into management
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)
- Bedgebury Management Plan implementation by Forest Enterprise
- Butterfly Conservation has carried out butterfly surveys in meadow sites, with a particular focus on UK Biodiversity Action Plan (BAP) Priority Species
- RSPB has carried out bird surveys on the heathlands
- Southborough Common management?
- Rusthall Common management?

The relevant UK Habitat Action Plans:

Lowland heathland <http://www.ukbap.org.uk/UKPlans.aspx?ID=15>

The relevant Kent Habitat Action Plans:

Lowland Heath (HAP 14)

Habitat Action Plan Four: Built up Areas and Gardens

Habitat description and current status

Built-up areas and gardens is the term given to urban and rural settlements, caravan parks, farm buildings, industrial estates, retail parks, waste and derelict land, urban parkland, transport infrastructure, domestic gardens, allotments, churchyards and cemeteries. It is defined by the UK BAP as a broad habitat type.

In Kent, these areas are considered a local priority and are therefore the focus of a dedicated action plan. Their conservation importance lies as much in the opportunities that they provide for people to have close contact with wildlife as in the protection of scarce species.

Commonly found throughout built-up areas and gardens is a myriad of residual, semi-natural and natural habitats, for example, woodland, rivers, streams and ponds, coastal shingle and species-rich hedgerows; each of these is of significant biodiversity value. The great crested newt, for example – a UK BAP priority species for which Kent is a stronghold – is associated with a number of these habitats, including hedgerows, woodland, ponds and non-amenity grassland.

Domestic gardens, allotments and churchyards provide suitable habitats for UK BAP priority species such as the song thrush and bullfinch, as well as those species more commonly seen, such as the fox, hedgehog, frog and toad. There are also certain species that have a strong association with buildings, where structures often mimic their favoured natural habitats, for example bats, house martins and swifts. If sympathetically managed, urban parks and industrial estates can provide good wildlife habitat. Similarly, the biodiversity interest of brownfield sites may be greater than that of large areas of the countryside. In Kent, brownfield sites support some of the country's most important populations of reptiles and invertebrates.

Whilst public and/or private sites can be managed specifically for wildlife, providing suitable access to these areas of natural and semi-natural green space within urban areas is essential if local communities and individuals are to benefit.

The demand for new homes in the south east of England is growing. This Action Plan seeks to promote the need to carefully design and landscape both existing and new developments in the borough so that biodiversity is recognised and opportunities for wildlife are maximised; both for biodiversity in its own right and for the benefits biodiversity brings to local communities (KLBAP, 1997).

Extent of habitat

To be ascertained

Threats to habitat

- Unprecedented increase in dense housing developments within the borough
- Relentless increase in private sales of gardens for housing (TW borough one of the highest in the UK)
- New house builds unsuitable for wildlife adaptation, e.g. bat roosts, etc

- Isolation and fragmentation of open spaces and gardens
- Habitat connectivity lost through development
- Invasion of invasive species, particularly non-native
- Lack of overall borough-wide strategy on how to safeguard urban areas, ensuring viable foraging areas remain intact
- Lack of tree strategy to ensure roosting/resting/maternity perches remain
- Pollution and climate change

Current action in Tunbridge Wells

- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a Living Landscape team by KWT in 2008 to improve habitat connectivity
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)
- Gardening for Wildlife Scheme administered by KWT and KHWP
- KHWP runs community events throughout the borough to raise awareness and involve community in conservation activities in partnership with TWBC and KCC
- KHWP carries out environmental education in borough schools in partnership with TWBC and High Weald AONB Unit
- Ongoing management for TWBC Local Nature Reserves through LHWP (Hilbert's Wood, Barnett's Wood, Crane Valley)
- Tree preservation orders issued by TWBC
- Ongoing maintenance of parks and open spaces by TWBC
- TWBC has various planning guidelines to adhere to when considering an application
- Designation of LW Sites by KWT
- Designation of LNRs, SNCIs by TWBC
- Pond and Tree Warden Scheme administered by BTCV
- Kent Bat Group very active within the borough, offering advice and collating data records
- Roadside Nature Reserves designated and managed by KWT
- Friends of Woodbury Park Cemetery successfully surveyed and wrote a Management Plan
- Friends of Foal Hurst LNR actively manage reserve under a Management Plan
- Tunbridge Wells Common actively managed through Commons Conservators under a Management Plan
- Southborough Common?
- Rusthall Common?

The relevant UK Habitat Action Plans:

Ancient and/or species-rich hedgerows <http://www.ukbap.org.uk/UKPlans.aspx?ID=7>

Built-up areas and gardens <http://www.ukbap.org.uk/UKPlans.aspx?ID=62>

Chalk rivers <http://www.ukbap.org.uk/UKPlans.aspx?ID=25>

The relevant UK Species Action Plans:

Great crested newt, *Triturus cristatus*, <http://www.ukbap.org.uk/UKPlans.aspx?ID=619>

Pipistrelle Bat, *Pipistrellus pipistrellus*, <http://www.ukbap.org.uk/UKPlans.aspx?ID=519>

Song thrush, *Turdus philomelos*, <http://www.ukbap.org.uk/UKPlans.aspx?ID=621>

Tree Sparrow, *Passer montanus*, <http://www.ukbap.org.uk/UKPlans.aspx?ID=503>

The relevant Kent Habitat Action Plans:

Built Up Areas and Gardens

Ancient and/or species-rich hedgerows

Chalk Rivers

Mixed broadleaved woodland and plantations in ancient woodland sites

Standing open water

DRAFT

Habitat Action Plan Five: Hedgerows

Hedgerows include all boundary lines of trees and shrub. They may be ancient or recent in origin, species-rich or poor, and may just be relics where only a straggling line of trees or shrubs remains. Many are of significant cultural and historic importance creating the landscape as we know it today within the borough. Field margins are a valuable integral part of the hedgerow habitat, significantly increasing the diversity of the habitat (Kent Biodiversity Action Plan, 1997).

Habitat description and current status

Ancient and species-rich hedgerows are a national priority habitat. They provide a valuable habitat for wildlife and aid dispersal of species by acting as corridors; currently hedgerows support 13 globally threatened or rapidly declining species. They are especially important for farmland birds, bats and dormice.

Extent of habitat

Threats to habitat

- Lack of management, e.g. no cutting or laying
- Incorrect management, e.g. cutting in breeding season and over-cutting
- Unsympathetic cutting practices
- Removal of hedges for agricultural and development, e.g. road widening
- Lack of buffer strip between hedgerow and arable/pasture causing overgrazing of hedgerow, for example
- Use of herbicides and pesticides
- Invasion of invasive species, particularly non-native
- Pollution and climate change

Current action in Tunbridge Wells

- Management of hedgerows administered through grants available under the Environmental Stewardship Scheme, DEFRA
- Management of hedgerows administered through grants available under the Woodland Grant Scheme, Forest Enterprise
- Implementation of legislation - Hedgerow Regulations 1997, Tree Preservation Orders and planning policies
- Hedgerow management advice available from the High Weald AONB Unit, FWAG and KHWP
- Limited land advice administered through the Kent High Weald Project
- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a Living Landscape team by KWT in 2008 to improve habitat connectivity
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)

- Lamberhurst Parish surveyed in 2006
- Conservation hedgerow management on designated sites, e.g. Barnett's Wood LNR
- The Kent Ornithological Society has carried out bird surveys on hedgerow birds
- The Kent Bat Group has carried out bat surveys in hedgerows
- Rusthall recreation ground hedges to be coppices/layed and gapped up to improve the conservation value of the site.
- Limited data collated through TPO's by TWBC
- TWBC support the countywide Free Tree Scheme

The relevant UK Habitat Action Plans:

Ancient and/or species-rich hedgerows <http://www.ukbap.org.uk/UKPlans.aspx?ID=7>

Cereal Field Margins <http://www.ukbap.org.uk/UKPlans.aspx?ID=8>

The relevant UK Species Action Plans:

Bullfinch, *Pyrrhula pyrrhula* <http://www.ukbap.org.uk/UKPlans.aspx?ID=542>

Dormouse, *Muscardinus avellanarius* <http://www.ukbap.org.uk/UKPlans.aspx?ID=462>

Linnet, *Carduelis cannabina* <http://www.ukbap.org.uk/UKPlans.aspx?ID=188>

Pipistrelle Bat, *Pipistrellus pipistrellus* <http://www.ukbap.org.uk/UKPlans.aspx?ID=519>

Reed Bunting, *Emberiza schoeniclus* <http://www.ukbap.org.uk/UKPlans.aspx?ID=279>

The relevant Kent Habitat Action Plans:

Cereal Field Margins <http://www.kentbap.org.uk>

Ancient and/or species rich hedgerows

Habitat Action Plan Six: Lowland Wood Pasture and Historic Parkland

Habitat description and current status

Lowland wood pastures and parks are habitats where there is a long tradition of grazing deer and domestic livestock in amongst trees. The tree cover and age of individual trees may vary. Wood pastures and parks are frequently renowned for their high concentration of ancient trees and their rich association of species.

Management practices such as pollarding are prominent, but other traditions are also represented, including selected felling and coppicing. The UK BAP includes sites that have

been “ converted to other land uses such as arable fields, forestry and amenity land, but where surviving veteran trees are of nature conservation interest”.

Of significance in these habitats is the mosaic of ecosystems that exist within it; one wood pasture can contain acid grassland, veteran trees and heathland, as well as archaeological features. Many priority species, such as birds, bats, fungi and bryophytes thrive in this habitat.

Extent of habitat

There exists 1286.38 hectares of wood pasture covering 3.9% in the borough (M B Davies, 2008) making us third in the county for largest extent. We have 37 historic parks and gardens sites including our most significant site, Scotney Castle having 45.33 hectares of wood pasture. Other sites include Rusthall Common, Cinderhill Community Woodland, Brenchley Woods, Friezland Wood and Barnett’s Wood LNR are remnants of wood pasture. This Action Plan will prioritise which of these sites has potential for restoration/creation of wood pasture.

	Wood Pasture Area (ha)	% Cover of the site
Ashour Wood, Printstile	0.10	0.22
Avery’s Wood, Bullingstone	0.02	0.05
Bayham Woods	3.9	1.57
Bedgebury Forest, Hawkhurst	61.12	7
Bedgebury Park	99.9	99.69
Bedgebury Park School	44.96	94.47
Bedgebury Pinetum	72.11	99.19
Bidborough Woods and Pastures	0.02	0.05
Bilsington Woods and Pasture	0.02	0.01
Brenchley Wood	0.08	0.08
Broomhill and Reynolds Lane Pastures	0.24	1.54
Calverley Park	4.55	40.92
Danemore Park	14.13	41.63
Dunloran Park	24.29	86.63
Friezland Wood, Tunbridge Wells	0.09	0.35
Lillesden, Hawkhurst	1.8	6.27
Moor Wood etc, Iden Green	0.01	0.01
Pembury Walks	7.78	4.52
Priest Wood, Langton Green	11.83	32.48
Roundshill Park Wood, Sissinghurst	15.38	20.88
Rusthall Common (SSSI) and Tunbridge Wells Common	5.84	6.41
Scotney Castle (SSSI)	45.33	40.27
Shirrenden Woods, Park and Pond, Hirsmonden	9.57	17.21
Sissinghurst Castle Garden	16.61	96.88

	Wood Pasture Area (ha)	% Cover of the site
Southborough Common	1.35	3.54
St Lawrences Churchyard, Bidborough	0.39	92.55
St Johns Recreation Ground	1.79	93.51
St Peters Old Church, Pembury	0.52	100
The Grove	1.77	95.48

Threats to habitat

- Loss through changes in agricultural practices
- Loss through over/under grazing
- Lack of tree management eg cessation of pollarding can reduce lifespan of the tree
- Lack of regeneration
- Reseeding and ploughing
- Aforestation, particularly coniferisation
- Exotic/non-native species, e.g. rhododendron, sycamore, grey squirrel
- Fragmentation of the habitat
- Loss of biodiversity through reduction in structural diversity
- Pollution and climate change
- Recreation: arboriculture health and safety due to visitor pressure
- Loss of rural skills to manage such unique habitats
- Invasion of invasive species, particularly non-native

Current action in Tunbridge Wells

- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a Living Landscape team by KWT in 2008 to improve habitat connectivity
- Woodland Trust ancient tree mapping system?
- EN woodland and pasture information system (WAPIS)?
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)
- Objectives of Management Plans for Cinderhill Community Woodland, Brenchley Wood and Barnett's Wood LNR all seek to restore to wood pasture
- 37 designated Historic Parks and Gardens sites within the borough
- Grants administered through the Woodlands Grant Scheme by Forest Enterprise
- Grants administered through Environmental Stewardship Scheme through Natural England
- KCC completed an updated survey of extent of habitat in 2008
- HLC (Historic Landscape Character) inventory.
- Kent and Medway Biological Record Centre Veteran tree survey

The relevant UK Habitat Action Plans:

Lowland dry acid grassland <http://www.ukbap.org.uk/UKPlans.aspx?ID=14>

Lowland wood-pasture & parkland <http://www.ukbap.org.uk/ukplans.aspx?id=58>

The relevant UK Species Action Plans:

Pipistrelle bat, *Pipistrellus pipistrellus* <http://www.ukbap.org.uk/UKPlans.aspx?ID=519>

Spotted flycatcher, *Muscicapa striata* <http://www.ukbap.org.uk/UKPlans.aspx?ID=463>

The relevant Kent Habitat Action Plans:

Lowland Wood Pasture and Parkland

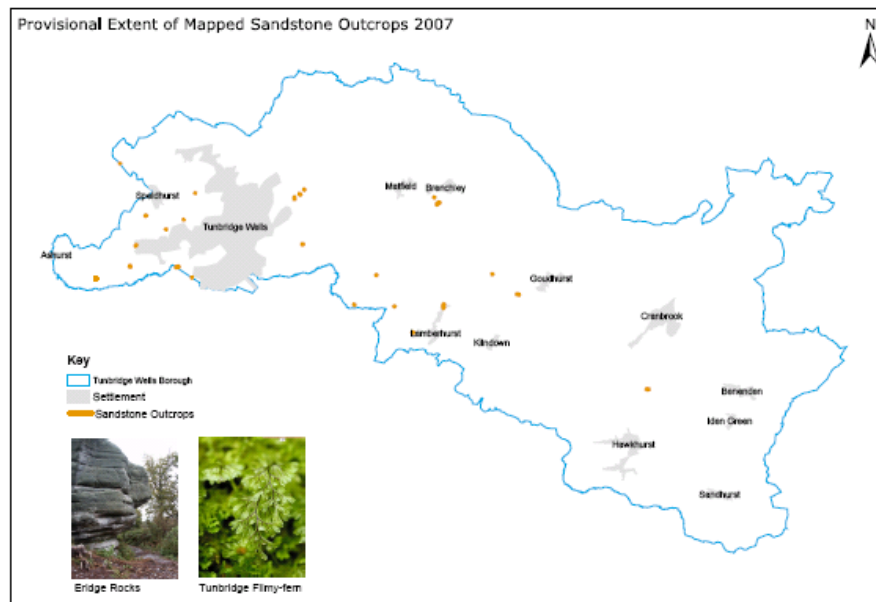
Lowland dry acid grassland

Mixed broadleaved woodland and plantations on ancient woodland sites

Old orchards

DRAFT

Habitat Action Plan Seven: Rocky outcrops



Habitat description and current status

Sandstone is a sedimentary rock, as such, fragmental in texture and consisting of sedimentary particles ranging from fine to coarse. Sometimes organic matter is also present. Sandstone outcrops are geological features that are rare and valuable for the lower plant colonies that occupy the interface. Often these exposed rocky outcrops are associated with gill woodlands, together providing unique conditions for rare mosses, ferns and liverworts to flourish, including the unique Tunbridge Filmy Fern.

These unique, internationally rare, sandy rocky outcrops that exist in the borough have attracted geologists and tourists for many years, causing extensive erosion in places through human pressures such as climbing, and graffiti. Further pressure comes from natural processes such as weathering, which causes the unusual, spectacular formations; this process is being accelerated due to climatic change.

Some of the borough's outcrops are so unique and valuable they have Scheduled Ancient Monument status (e.g. High Rocks), as well as being designated Sites of Special Scientific Interest (SSSI).

Extent of habitat

- High Rocks
- Wellington Rocks, Mt Edgcumbe Rocks, St Helena: Royal Tunbridge Wells Common
- Harrison Rocks (Wealden District Council)
- Toad Rock, Bulls Hollow, Happy Valley: Rusthall Common

Threats to habitat

- Erosion from human pressure, e.g. climbing
- Unique landscape feature diminished due to graffiti, litter, etc
- Loss of rare lower plants due to inappropriate management
- Loss of biodiversity due to shading from encroaching vegetation
- Obscuring of sedimentary features through covering from vegetation
- Climate change (pollution, change in weather patterns)
- Invasion of invasive species, particularly non-native

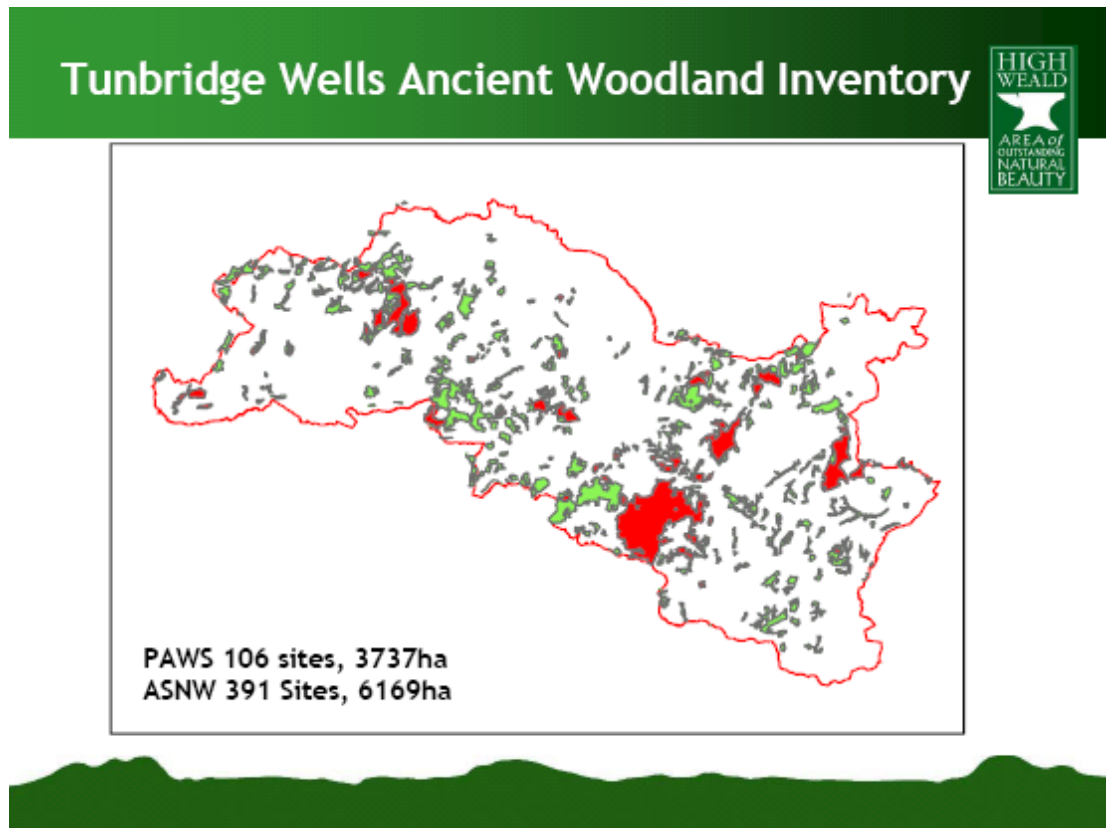
Current action in Tunbridge Wells

- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a living landscape officer by KWT in 2008 to improve habitat connectivity
- Toad Rock, Denny Bottom and Bulls Hollow complex designated geological SSS

Kent Biodiversity Action Plan Objectives

There currently exists no Habitat Action Plan for rocky outcrops in the Kent Biodiversity Action Plan. This habitat was chosen for Tunbridge Wells because of its *local* significance, as well as its international importance.

Habitat Action Plan Eight: Gill Woodland (wet woodland)



Habitat description and current status

In the Weald of Sussex, Surrey and Kent, much of the wood occurs in distinct valleys called "gills". Gills are deeply cut ravines, usually with a stream in the base, which historically eroded the ravine and are commonly wooded. The proximity to Europe and its relative humid microclimate provides a unique ecology; with a *local* distinct relationship between our sandy outcrops and the gill woodlands; the sandstone acts like a sponge, holding water and thus creating damp, humid conditions. This 'Atlantic' microclimate reflects the moist, warm condition of the Atlantic 7,000 years ago. Many of these gill woodlands will be primary woodlands, meaning that they date back to the Ice Age.

They support a rare community of both vascular and non-vascular plants, not found all together anywhere else in Europe. They are of significant value to mosses, liverworts and ferns, which flourish in such humid conditions; our very rare Tunbridge Filmy Fern existed in such woodlands. The survival of many priority species such as birds, mammals, and invertebrates is dependent on this unique ecosystem; thus habitat connectivity is of paramount importance.

Most of our gill woodlands are in private land ownership, indicating the important part private landowners have to play in habitat and species conservation. Our borough is in a fortunate position to be covered by %?

Extent of habitat

- Shadwell Woods
- Spround Woods
- Avery Woods
- Brenchley Woods (KWT: TQ648420)
- Marshley Harbour
- Bassetts
- Snipe

Threats to habitat

- Water abstraction
- Pollution and climate change
- Coniferisation
- Overgrazing
- Economic development pressure
- Invasion by exotic species, particularly Himalayan balsam, Japanese knotweed and sycamore
- Invasion by non-native animals, such as grey squirrel and muntjac deer
- Lack of appropriate management
- Habitat fragmentation
- Loss of biodiversity due to reduction in structural diversity within the woodland
- Loss of rare bryophytes due to inappropriate management
- Lack of dead wood, over-zealous urge to 'clean up' woodlands

Current action in Tunbridge Wells

- TWBC is a member of the KLBAP Steering Group set up in 1997 to safeguard Kent LHAPs
- Engagement of a living landscape officer by KWT in 2008 to improve habitat connectivity
- High Weald AONB Unit and TWBC have undertaken an Ancient Woodland Inventory in 2007
- High Weald AONB Unit has undertaken a project of promoting the change of species from conifers to broadleaves on ancient woodland sites (PAWS Project)
- Natural England has designated ? SSSI, ? LNRs? SNCI?
- Forestry Enterprise policy is to reinstate woodland to native species after clearfell
- The Woodland Grant Scheme administered by Forest Enterprise favours sustainable management of wet woodland habitats
- Natural England's Environmental Stewardship Scheme favours the sustainable management of these wet woodlands
- Local authority issues Tree Preservations Orders

- FWAG advises and encourages the sustainable management of these wet woodlands
- RSPB is positively managing their sites to conserve these priority habitat
- Land Managers Pack produced in 2008 by the Kent Countryside Management partnership (CMP's) includes advice on gill woodlands
- TWBC has embarked on a Green Space Strategy which involves spatial habitat planning within the borough (planning for climate change)

The relevant UK habitat action plans:

Lowland beech & yew woodland <http://www.ukbap.org.uk/UKPlans.aspx?ID=2>

Lowland fens <http://www.ukbap.org.uk/UKPlans.aspx?ID=18>

Lowland wood-pasture & parkland <http://www.ukbap.org.uk/UKPlans.aspx?ID=5>

Wet woodland <http://www.ukbap.org.uk/UKPlans.aspx?ID=4>

The relevant UK species action plans:

Otter, Lutra lutra <http://www.ukbap.org.uk/UKPlans.aspx?ID=428>

Weevil, Melanapion minimum <http://www.ukbap.org.uk/UKPlans.aspx?ID=443>

Cranefly, Lipsothrix nervosa <http://www.ukbap.org.uk/UKPlans.aspx?ID=418>

The relevant Kent habitat action plans:

Wet woodlands

Lowland beech and yew woodland

Lowland fens

Lowland wood-pasture and parkland

Mixed broadleaved woodland and plantations on ancient woodland sites