

# Sevenoaks Greensand Commons Project

## Bitchet Common

Ecological Scoping & Outline Nature Conservation Management Plan



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**Protecting Wildlife for the Future**

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## 1 INTRODUCTION

### 1.1 Background

Sevenoaks District Council, working in conjunction with Kent Wildlife Trust, has secured funding from the Heritage Lottery Fund (HLF) to enhance the natural heritage of eight Commons occurring within Sevenoaks District.

The Commons, which include - Hosey Common, Farley Common, Crockhamhill Common, Bitchet Common, Fawke Common, Seal Chart & Redhill Woods, Sevenoaks Common, and a small Common in Weald village in Sevenoaks – cover an area of nearly 300ha of varied habitats ranging from high forest to coppiced woodland and rare wooded heath. The Commons are connected to the long distance Greensand Way path which runs along the ridge and joins the National Trust properties of Chartwell, Knole and Ightham Mote. An overview map showing the location of each of the Commons is included at Figure 1.

For the purposes of this project the eight Commons are collectively known as the Sevenoaks Greensand Commons. They are some of the most beautiful wild places in the south east, but have become overgrown and undervalued.

The aim of the project is to turn the tide and reignite a sense of value and interest in the natural heritage of the Commons by recruiting and training volunteers and implementing an exciting programme of practical restoration, public participation in scientific research and heritage learning activities. It will see the landowners and stakeholders coming together to engage local people and support a shared effort to restore, protect and manage these Commons. It will also develop Friends of the Commons groups, as well as building the skills and capacity of local people to protect, manage and promote the heritage of the Commons for present and future generations.

Under-pinning this work is the provision of a series of ecological scoping and outline nature conservation management reports which will identify and evaluate the existing biodiversity features (habitats and species) known to occur on the Commons, and make outline recommendations for nature conservation management aimed at maintaining and enhancing the existing biodiversity interest of each Common.

Bitchet Common is owned by the Knole Estate and managed by Sevenoaks District Council.

This report presents the findings of the desktop study and site walkover of Bitchet Common.

### 1.2 Survey Location / Area

Bitchet Common lies approximately 3km to the southeast of Sevenoaks and covers an area of approximately 20.53ha. It is divided into two main blocks – the main Common, bisected by an un-named road running in a north-east / southwest direction, and a smaller area to the north at Bitchet Green which comprises a number of discrete areas located along verges and road junctions.

Bitchet Common, together with several other sites in the areas, form part of the manorial wastes of the Knole Estate. It is surrounded by a mix of broadleaved woodland, grassland, and an intensively managed orchard, with a road forming part of the southeastern boundary.

The broadleaved semi-natural and replanted woodland occurring along the northern, eastern and western boundaries are included on the ancient woodland inventory<sup>1</sup>.

The Common areas at Bitchet Green abut roads, residential properties, areas of grassland and a cricket ground.

In the centre of Bitchet Common is a private residence – Starvecrow House, which is excluded from the Registered Common / Open Access land (Figure 6).

A map and aerial photographic extract showing the general location and boundaries of the Common are included at Figures 2 and 3.

### 1.3 Limitations and Constraints

The timing for the delivery of this HLF project has imposed limitations on this element of the work in terms of time.

The time constraints have meant that it has only been possible to make a single site visit to the Common. This will have impacted the detailed recording of the site and limited the overall number of species recorded. However, it is unlikely to have impacted the identification / evaluation of important habitats or their potential to support protected species.

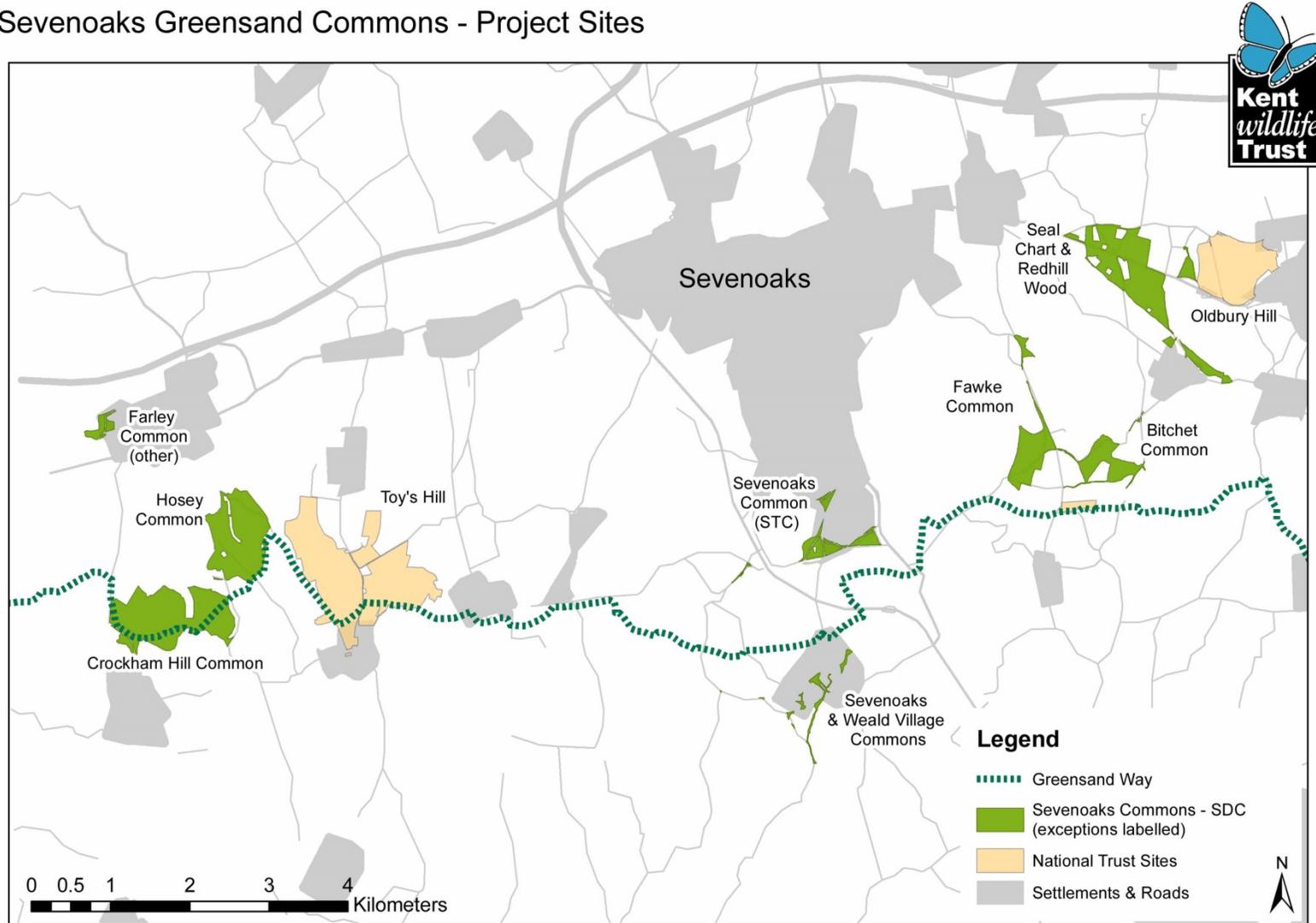
It should also be noted that the findings of this report represent the professional opinion of a qualified ecologist and do not constitute professional legal advice.

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<sup>1</sup> See map at

<http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=commlIndex,ancwoodIndex,backdropDIIndex,backdropIIndex,europeln dex,vmIBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=555323:153208:557332:154213 &useDefaultbackgroundMapping=false> Ancient woodland in England is defined as an area that has been wooded continuously since at least 1600 AD. Woodlands classed as ancient are irreplaceable, with ancient woodland being considered important for its wildlife, soils, recreation, cultural value, history and contribution to landscapes.

# Sevenoaks Greensand Commons - Project Sites



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Figure 1: Sevenoaks Greensand Commons. Overview Map

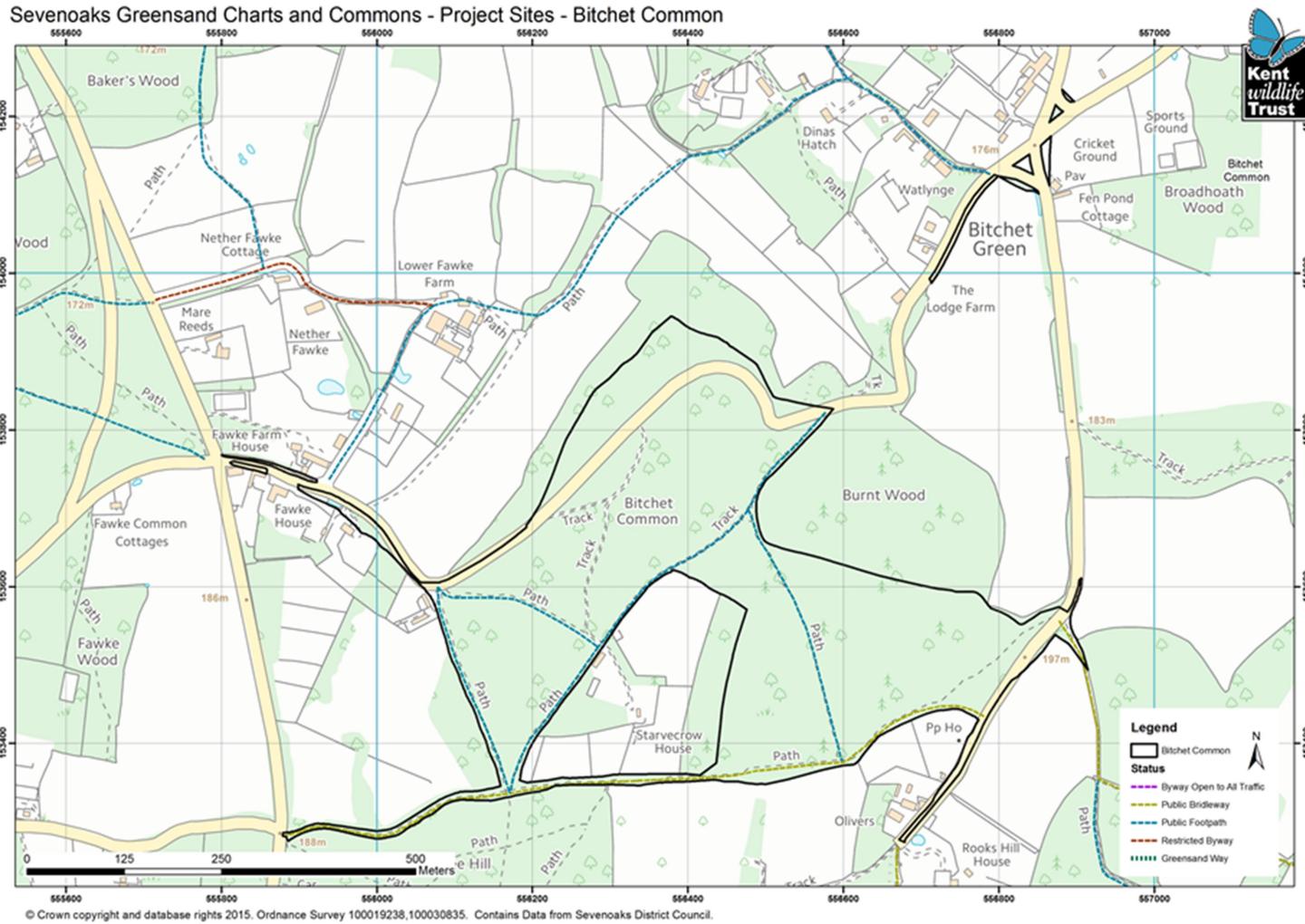


Figure 2: Bitchet Common. Site Location and Boundary Map



Figure 3: Bitchet Common. Google Earth Aerial photographic extract (imagery date 1 January 2008) showing the boundary of the Common (outlined in red). *All boundaries are indicative only. Do not scale*

## 2 METHODOLOGY

### 2.1 Desktop Study

A number of sources were consulted for records of statutory and non-statutory wildlife designations, notable habitats and protected / notable species. These comprised:

- Kent and Medway Biological Records Centre <sup>2</sup> (KMBRC)
- Kent Reptile and Amphibian Group <sup>3</sup> (KRAG)
- Kent Wildlife Trust (KWT)

KMBRC was asked to carry out a combined database search of Fawke Common and Bitchet Common<sup>4</sup>. They were asked to provide information relating to the following:

- Statutory and non-statutory designated nature conservation sites
- Identification, distribution and extent of habitats<sup>5</sup>
- Protected Species Inventory
- Conservation Concern Species Inventory (NERC Section 41 & BAP Priority)
- Invasive Non-native Species Inventory
- Kent Rare & Scarce Species Inventory
- Bat records from Kent Bat Group (including map of nearby roost locations)
- Bird records from Kent Ornithological Society, including an indication of breeding
- Habitat data from the Kent Integrated Habitat Survey 2012<sup>6</sup>
- BAP habitat data from the Kent Integrated Habitat Survey 2012

KRAG was asked to provide information relating to the following:

- Inventory of reptiles and amphibians
- Inventory of ponds

KWT utilised open source data, such as that provided by the British Geological Society<sup>7</sup>, for information relating to geology and the Soilscales website<sup>8</sup> for information relating to soils.

### 2.2 Site Visit

Bitchet Common was visited on 5<sup>th</sup> and 12<sup>th</sup> June 2017 by Neil Coombs CEnv MCIEEM, Land Management Advisor for Kent Wildlife Trust. Weather conditions at the time of the survey visits were overcast.

The walkover survey comprised four elements: a Phase 1 Habitat Survey; a preliminary Woodland Condition Assessment; a preliminary veteran tree check; and a preliminary check for access issues.

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<sup>2</sup> [www.kmbrc.org.uk](http://www.kmbrc.org.uk)

<sup>3</sup> <http://www.kentarg.org/>

<sup>4</sup> The two Commons lie adjacent to each other and it was deemed appropriate to include both within a single data search

<sup>5</sup> Identification of habitats are based on the results of the Arch Habitat Survey of Kent – available to view at

<http://www.archnature.eu/mapping-tools.html>

<sup>6</sup> <http://www.archnature.eu/mapping-tools.html>

<sup>7</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

<sup>8</sup> <http://www.landis.org.uk/soilscales/>

### 2.2.1 Preliminary Phase 1 Habitat Survey

The habitat survey was undertaken in general accordance with Phase 1 Habitat Survey methodology, which provides a standardised system for classifying and mapping wildlife habitats (JNCC, 2010). The survey involved mapping vegetation types onto aerial photographs<sup>9</sup>, in terms of some ninety specified habitat types, using standard colour codes. Further information is gained from the use of descriptive ‘target notes’, which give a brief account of particular areas of interest.

### 2.2.2 Preliminary Woodland Condition Survey

The methodology used for the preliminary woodland condition survey was adapted from the Common Standards Monitoring Guidance for Woodlands<sup>10</sup> (JNCC, 2004), and the Condition Assessment Monitoring Form for Woodlands<sup>11</sup> (Essex Wildlife Trust). It targeted the woodland areas only and provided basic information relating to:

- Woodland type (i.e. native / secondary / scrub / PAWS / broadleaved / conifer)
- Main species composition and main compartments
- Stand type i.e. coppicing, maiden, plantation
- Age class
- Evidence of historic features i.e. wood banks (limited to what is noted during walkover only)
- Evidence of existing management
- General Condition Assessment i.e. under active management, neglected, unmanaged.

### 2.2.3 Preliminary Veteran Tree Check

The aim of the preliminary veteran tree check was to:

- Establish presence / absence of veteran trees on site.
- Provide general location data for trees e.g. ‘veteran trees are mainly concentrated in the southern end’, or ‘scattered throughout the site’
- Provide general information about main species noted i.e. oak, hornbeam, ash, etc.

### 2.2.4 Preliminary Identification of Access Issues

The preliminary identification of potential access issues was based on what is evident during the site walkover. It included noting the presence of formal / informal paths, existing car parks, apparent use of site i.e. Dog walkers, families, recreation, evidence of fly-tipping or unauthorised vehicular use.

A series of photographs taken during the site visit are included at Appendix A.

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<sup>9</sup> Using the Phase 1 Habitat Survey Toolkit <https://www.brookes.ac.uk/bms/services/ceec/phase-one-habitat-survey-toolkit/about/>

<sup>10</sup> Document available to download from [http://jncc.defra.gov.uk/pdf/CSM\\_woodland.pdf](http://jncc.defra.gov.uk/pdf/CSM_woodland.pdf)

<sup>11</sup> Form available to download from <http://www.essexwtrecords.org.uk/sites/default/files/surveyfiles/EWT%20woodland%20condition%20assessment%20form%20amended%2014%2003%2012.pdf>

### 3 RESULTS

For clarification: the northernmost block of Bitchet Common, shown on the Magic Website as ‘Bitchet Green’ is referred to within subsequent text as ‘Bitchet Green’; the remaining area of Bitchet Common is referred to as Bitchet Common.

#### 3.1 Designated Nature Conservation Sites

Bitchet Common is included within One Tree Hill and Bitchet Common SSSI<sup>12</sup> (Appendix B).

The Site Management Statement for One Tree Hill and Bitchet Common SSSI prepared for Sevenoaks District Council by English Nature in 2001, describes the nature conservation importance of the SSSI as follows: *“The site shows well the differing woodland types supported by the acidic sandy soils on the plateau and calcareous ragstone on the slopes. The majority of Bitchet Common supports mixed woodland on acid soils, containing sessile oak Quercus petraea, beech Fagus sylvatica and birch Betula sp., with some densely stocked areas of sweet chestnut Aesculus hippocastanum. Other trees included rowan Sorbus aucuparia, whitebeam Sorbus aria, yew Taxus baccata and naturalised Scots pine Pinus sylvestris. The ground flora is generally dominated by bracken Pteridium aquilinum and brambles Rubus fruticosus, but there is also some heather Calluna vulgaris and bilberry Vaccinium myrillus. There is potential for restoring more open, heathy habitat in areas where ling heather and bilberry still occur.*

*Among the scarce plants and animals supported by the diverse habitats are several unusual molluscs, including Rolf’s door snail, a point snail Acicula fusca, and a large slug Tandonia rustica for which this was the first recorded locality in Britain.”*

Bitchet Green is not included within any statutory or non-statutory nature conservation sites.

#### 3.2 Geology and Soils

##### **Bitchet Common**

The British Geological Survey website<sup>13</sup> indicates that there are two types of bedrock geology underlying the Common. They include:

- Hythe Formation - Sandstone And [subequal/subordinate] Limestone, Interbedded. Sedimentary Bedrock formed approximately 112 to 125 million years ago in the Cretaceous Period. Local environment previously dominated by shallow seas.
- Sandgate Formation - Sandstone And Mudstone. Sedimentary Bedrock formed approximately 112 to 125 million years ago in the Cretaceous Period. Local environment previously dominated by shallow seas.

Superficial deposits are present across some, but not all of the Common and are described as, “Head - Clay, Silt, Sand And Gravel. Superficial Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by subaerial slopes.”

<sup>12</sup> SSSIs are the country’s very best wildlife and geological sites. They hold some of our rarest and most threatened wildlife and geology. SSSIs are legally protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006.

<sup>13</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

## Bitchet Green

The British Geological Survey website<sup>14</sup> indicates that the bedrock geology underlying Bitchet Green is “Sandgate Formation – Sandstone and Mudstone. Sedimentary bedrock formed approximately 112 – 125 million years ago in the Cretaceous Period.” There are no superficial deposits in this area.

The Soilscales website<sup>15</sup> has identified the soils on both Bitchet Common and Bitchet Green as being ‘Freely draining slightly acid loamy soils’<sup>16</sup>. These soils are described as giving rise to neutral and acid pastures and deciduous woodlands.

Geology and soil maps are available to view on the British Geological Survey and Soilscales websites. Owing to copyright restrictions it is not possible to include map extracts within this report.

### 3.3 Habitats

The 2012 Kent Habitat Survey shows Bitchet Common as being dominated by ‘WB3 broadleaved woodland’<sup>17</sup> with discrete areas of ‘WB31Z beech and yew woodland’<sup>18</sup>, ‘BRZ continuous bracken’<sup>19</sup>, and ‘HE11 European dry heath’<sup>20</sup>. Bitchet Green is shown as comprising ‘WB3 broadleaved woodland’ and ‘GI0 improved grassland’<sup>21</sup>

The habitat map provided by KMBRC is attached at Figure 5.

The Kent Habitat Survey has also identified that the broadleaved woodland areas of Bitchet Common are included on Natural England’s Priority Habitat Inventory as either ‘Lowland mixed deciduous woodland’, or ‘Beech and yew woodland’. This is further confirmed by the Magic website<sup>22</sup>, although this website also shows Compartment 6 as wood pasture<sup>23</sup>.

A woodland management plan (Crichton Maitland & Co. September 1993), describes the historic development of the Knole Manorial Waste Woodlands (which includes Bitchet Common) as appearing to, “*have been wooded in prehistoric times, although grazing animals may have created and maintained transient grades. Clearing by man and grazing by domestic stock seems to have been completed by the time that the Domesday Book was compiled with the stand types varying from woodland to open heath with varying amounts of trees.*”

<sup>14</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

<sup>15</sup> <http://www.landis.org.uk/soilscales/#>

<sup>16</sup> Soilscale 6

<sup>17</sup> WB3: ‘Dry’ woods predominantly composed of broadleaf and yew species (i.e. with >80% broadleaves and yew (*Taxus baccata*) in the canopy).

<sup>18</sup> WB331Z: Includes woods where beech is not considered native; and woods on acid soils where beech is native but the wood is not rich in epiphytes, or does not contain other ‘old growth’ characteristics

<sup>19</sup> BRZ: Areas dominated by dense bracken.

<sup>20</sup> HE11: Heather dominated or co-dominated dry heath vegetation.

<sup>21</sup> GI0: vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass and white clover.

<sup>22</sup> Priority Habitat Inventory Habitat – Deciduous Woodland

<http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=bapdecIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=555442:153084:557113:154298&useDefaultBackgroundMapping=false>

<sup>23</sup> The identified extent of wood pasture is available to view at

<http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=bapwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=555442:153084:557113:154298&useDefaultBackgroundMapping=false>

A Site Management Statement prepared by English Nature in 2001<sup>24</sup> provides the following description of Bitchet Common:

*“The north-facing slopes comprise mature sessile oak Quercus petraea and beech Fagus sylvatica wood with an understorey of silver birch Betula pendula, holly Ilex aquifolium, whitebeam Sorbus aria and gorse Ulex europaeus. The ground flora is dominated by bracken Pteridium aquilinum and bramble Rubus fruticosus agg. with occasional honeysuckle Lonicera periclymenum and wood sage Teucrium scorodonia with localised patches of bluebell Hyacinthoides non-scripta and pignut Conopodium majus along the road. Storm-damaged areas have been planted up with sessile oak, beech, and whitebeam.*

*The open plateau woodland on the west side of the common comprises sessile oak and beech with some sweet chestnut over a ground flora dominated by bilberry Vaccinium myrtillus with occasional honeysuckle and wavy hair-grass Deschampsia flexuosa and wood sage on the path margins.*

*The main ride up the valley supports a more diverse ground flora with yellow pimpernel Lysimachia nemorum, three-veined sandwort Moehringia trinervia, common figwort Scrophularia nodosa and heath speedwell Veronica officinalis.*

*The southern side of the common is largely open and dominated by bracken. A more heathy vegetation remains under the powerlines with ling heather Calluna vulgaris. Silver birch is present in patches. A small part of this area has been planted up.*

*There is a small area of more base-rich woodland type on the southern margin of the common. Here beech occurs over hazel Corylus avellana and ash Fraxinus excelsior with a ground flora dominated by dog’s mercury Mercurialis perennis.”*

A more detailed botanical survey of Bitchet Common and Burnt Wood was undertaken by Fred Booth MBE in 2011<sup>25</sup>.

Bitchet Common was managed under a Woodland Grant Scheme operating from 1994 – 1999, with a second scheme operating from 2000 – 2005. The Magic website provides no evidence to suggest that the Common is currently being managed under any Forestry / Agri-Environment Scheme.

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<sup>24</sup> English Nature. 24 April 2001. Site Management Statement: One Tree Hill and Bitchet Common SSSI

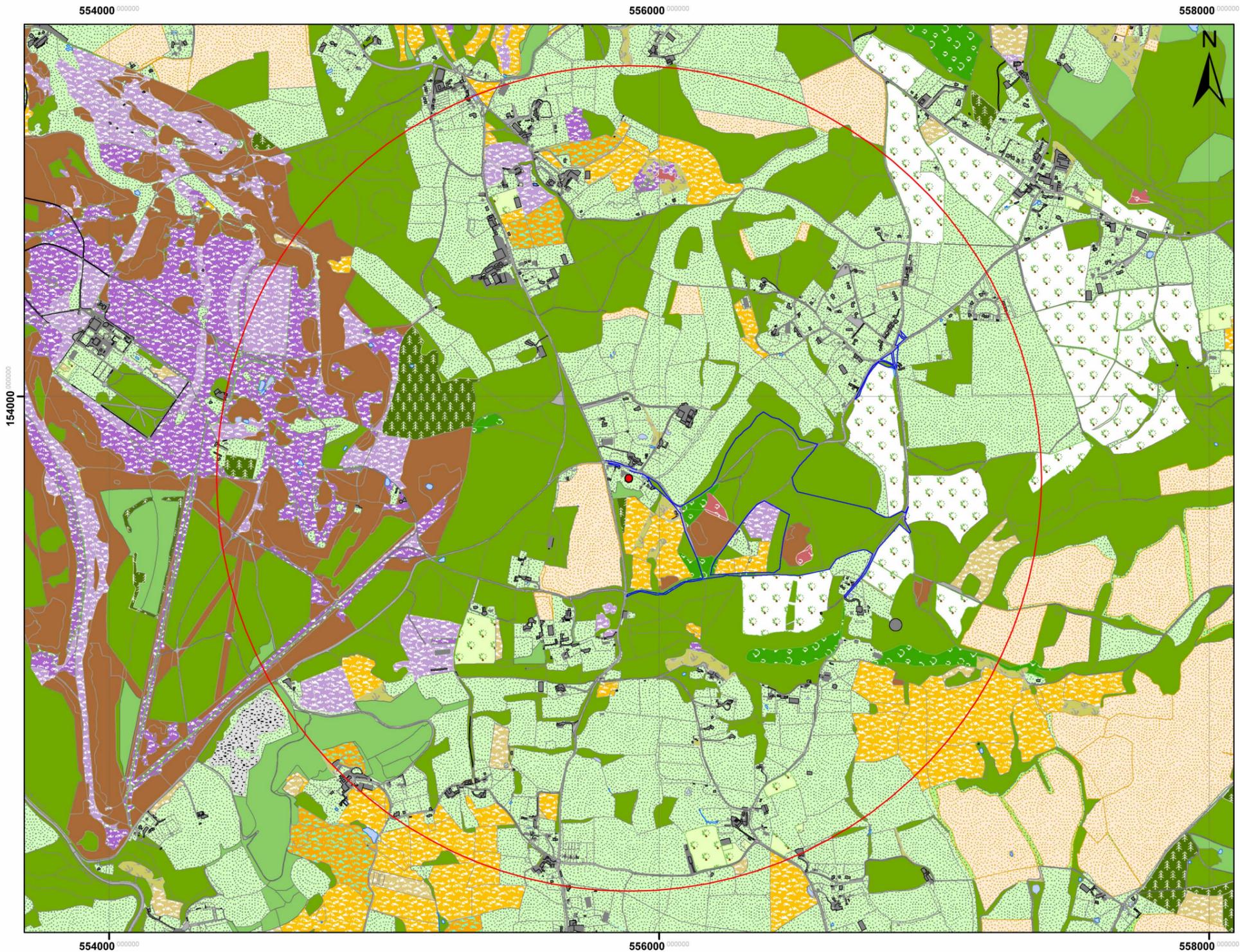
<sup>25</sup> Included at Appendix 1 within Bitchet Common. A Historical and ecological perspective. Available to download at <http://www.self-willed-land.org.uk/articles/bitchetappendix1ecologyandhistory.pdf>

**Kent & Medway Biological Records Centre**  
 Map showing the habitats recorded by the Kent Habitat Survey 2012 at  
 Fawke Common & Bitchet Common  
 Anne Waite, Kent Wildlife Trust  
 ENQ/17/127 21/03/2017



KMBRC would like to acknowledge Kent County Council and the Kent Habitat Survey 2012 for the habitat data used in this map. See [www.archnature.eu/](http://www.archnature.eu/) for more information

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**KEY**

- Study Area
- Site Point
- Kent Habitat Survey 2012**
- Urban and industrial environment (LF, UR, RE)**
  - Transport network
  - Built road verge
  - Buildings or general built surface
  - Other artificial exposure
- Agriculture and improved grassland (GI, CR, FT)**
  - Improved grassland
  - Arable
  - Arable field margin
  - Intensively managed orchard
  - Traditional orchard
- Neutral grassland (GN)**
  - Semi-improved lowland meadow
  - Coarse neutral grassland
  - Semi-improved neutral grassland
- Acid grassland (GA)**
  - Lowland dry acid grassland
  - Semi-improved lowland dry acid grassland
- Woodland (WB, WC)**
  - Mixed woodland
  - Scrub woodland
  - Broad leaved woodland
  - Beech and yew woodland
  - Plantation coniferous woodland
- Heath and bracken (HE, BR)**
  - European dry heath
  - Continuous bracken
- Water (AS, AR)**
  - Open standing water, fresh
  - Rivers and streams, fresh

Figure 4: Bitchet Common. Kent Habitat Survey, 2012. For ease of reference Bitchet Common / Bitchet Green is shown outlined in blue

The 2017 Phase 1 Habitat Survey results were broadly similar to previous descriptions of the site, confirming that Bitchet Common is dominated by broadleaved semi-natural woodland, with Bitchet Green comprising discrete blocks of broadleaved semi-natural woodland, semi-improved neutral grassland and improved grassland.

The Phase 1 Habitat map is enclosed at Figure 5.

Compartments 1 – 12 and Target Notes 1 – 26, included at Table 1 below, provide descriptions of the habitats and other features encountered during the site walkover. Photograph numbers referred to are included at Appendix A.

Table 1: Bitchet Common Compartment Descriptions / Target Notes

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>26</sup> )) during 2017 walkover
Cmpt 1	Broadleaved semi-natural woodland (0.11ha)	Linear woodland shaw to field and lane with ash <i>Fraxinus excelsior</i> and sycamore <i>Acer pseudoplatanus</i> as the dominant standard trees (Photo 1).	Tufted vetch <i>Vicia cracca</i> , cow parsley <i>Anthriscus sylvestris</i> , cock's-foot <i>Dactylis glomerata</i> , Herb Robert <i>Geranium robertianum</i> , wood avens <i>Geum urbanum</i> , honeysuckle <i>Lonicera periclymenum</i> , dog's mercury <i>Mercurialis perennis</i> , ribwort plantain <i>Plantago lanceolata</i> , meadow-grass <i>Poa</i> sp., brambles <i>Rubus fruticosus</i> agg., common nettle <i>Urtica dioica</i> , cock's-foot <i>Dactylis glomerata</i> , bluebell <i>Hyacinthoides non-scripta</i> , ivy <i>Hedera helix</i> .
Cmpt 2	Improved grassland (0.04ha)	Grass verge with scattered oak trees located between lane and boundary hedge abutting cricket ground (Photo 2).	Sycamore <i>Acer pseudoplatanus</i> , hazel <i>Corylus avellana</i> , daisy <i>Bellis perennis</i> , ash, Yorkshire fog <i>Holcus lanatus</i> , meadow-grass, blackthorn <i>Prunus spinosa</i> , pedunculate oak <i>Quercus robur</i> , buttercups <i>Ranunculus</i> spp., Bramble, docks <i>Rumex</i> spp., white clover <i>Trifolium repens</i> .
Cmpt 3	Neutral grassland – semi-improved (0.03ha)	Small triangle of semi-improved grassland with occasional scattered trees including oaks and wild service-tree <i>Sorbus torminalis</i> (Photo 4).	Pignut <i>Conopodium majus</i> , sweet vernal-grass <i>Anthoxanthum odoratum</i> , common knapweed <i>Centaurea nigra</i> , cock's-foot, Yorkshire fog, lesser stitchwort <i>Stellaria graminea</i> , wood-rush species <i>Luzula</i> spp., meadow-grass, buttercups, docks, white clover, rough hawkbit <i>Leontodon hispidus</i> , tufted vetch <i>Vicia cracca</i> , perennial rye-grass <i>Lolium perenne</i> , germander speedwell <i>Veronica chamaedrys</i> , hogweed <i>Heracleum sphondylium</i> .
Cmpt 4	Broadleaved semi-natural woodland (0.02	Two small fragments of broadleaved semi-natural woodland dominated by	Cow Parsley, cock's-foot, ivy, bluebell, meadow-grass,

<sup>26</sup> DAFOR = Dominant; Abundant; Frequent; Occasional; Rare

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>26</sup> )) during 2017 walkover
	ha)	sycamore and bounded by roads (Photo 5).	bramble, common nettle.
Cmpt 5	Broadleaved semi-natural woodland (1.63 ha)	A steeply sloping roadside shaw with possibly a pit / former workings. Not fully accessible. Appears to be dominated by ash and hazel coppice with some oak standards. Dog's mercury is abundant within the ground flora as is typical of densely shaded and neglected coppice (Photo 6).	Dog's mercury (A).
Cmpt 6	Broadleaved semi-natural woodland (8.75 ha)	<p>Secondary birch <i>Betula</i> sp. woodland establishing over open scattered standard trees which may formerly have been managed as wood pasture / wooded heath. There is some occasional sweet chestnut <i>Castanea sativa</i> coppice especially towards the track/footpath from road (Photo's 7 &amp; 8).</p> <p>Bracken <i>Pteridium aquilinum</i> is occasional, especially to rising ground where heather <i>Calluna vulgaris</i> and bilberry <i>Vaccinium myrtillus</i> are present (TN10; Photo 9).</p> <p>Following the PROW from the lane at the western boundary the compartment rises to a plateau of open beech <i>Fagus sylvatica</i> high forest.</p>	Holly <i>Ilex aquifolium</i> , bilberry, bracken, heather.
Cmpt 7	Broadleaved semi-natural woodland (0.47 ha)	Beech plateau (TN15; Photo 19)	
Cmpt 8	Broadleaved semi-natural woodland (8.68 ha)	<p>Broadleaved semi-natural woodland lying on ground rising towards a PROW boundary adjacent to open fields and NT land One Tree Hill. Exact boundary of Common unclear.</p> <p>Woodland generally comprises standard oak over hazel <i>Corylus avellana</i> with occasional yew. (Photo 21).</p> <p>Oak is more mature and woodland is more open with birch present towards the lane. There are also areas of more open woodland with bracken and mature Scots pine <i>Pinus sylvestris</i> (Photo 22). It is possible these features are indicative of a former wood pasture / wooded heath habitat.</p>	Bluebells (A); holly, bramble.
Cmpt 9	Broadleaved semi-natural woodland (0.54 ha)	<p>PROW abutting NT land at One Tree Hill. Birch is establishing to the west; remainder of compartment is more open and dominated by mature beech with occasional holly and yew <i>Taxus baccata</i> saplings. (Photo 25).</p> <p>At least one veteran beech coppice tree is present.</p> <p>Brambles and bluebells dominate the ground flora.</p>	Bramble (D); bluebells (D).

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>26</sup> )) during 2017 walkover
Cmpt 10	Broadleaved semi-natural woodland (0.23 ha)	Narrow woodland shaw to house and gardens adjacent to lane. Dominated by ash and sycamore with some beech and field maple. Holly coppice. Understorey with hazel and yew (Photo 30).	Ferns.
Cmpt 11	Broadleaved semi-natural woodland (0.04 ha)	Narrow shaw dominated by sycamore with hazel, holly, hawthorn, cherry and privet in the understorey (Photo 31).	
Cmpt 12	Improved grassland (0.03ha)	Narrow grass strip between lane and outbuildings. Grass-dominated; managed by mowing (Photo 32).	Pansies, buttercups, daisies, ferns.
TN1	-	Compartment 2. TQ568 541. Native species hedgerow with trees – species poor (Photo 3). Hedgerow is S41 Habitat of Principal Importance (formerly UKBAP Priority Habitat) <sup>27, 28</sup> .	
TN2	-	Compartment 2. TQ568 541. Earth bank.	
TN3	-	Compartment 1. TQ567 541. Dry ditch.	
TN4	-	Compartment 6. TQ565 537. Mature beech (Photo 14).	
TN5	-	Compartment 6. TQ563 536. Large beech coppice stool surrounded by developing birch woodland (Photo 15).	
TN6	-	Compartment 6. TQ563 536. Sunken Lane or boundary ditch (Photo 16).	
TN7	-	Compartment 6. TQ563 6 Earth bank.	
TN8	-	Compartment 6. TQ562 535. Boundary beech at junction of path / trackway coppice (Photo 17).	
TN9	-	Compartment 6. TQ562 535. Easement. Gorse <i>Ulex europaeus</i> present (Photo 18).	
TN10	-	Compartment 6. TQ562 535. Area around footpath with characteristics of former wood pasture / wooded heath. Area includes bilberry and heather as well as bracken. Mixed broadleaved woodland saplings are establishing with some more mature and coppiced (or grazed?) sweet chestnut (Photo 9).	
TN11	-	Compartment 6. TQ561 535. Beech advisory in proximity to path (Photo 10).	
TN12	-	Compartment 6. TQ560 535. Specimen oak – hybrid <i>Q. x rosacea</i> ? (Photo 11).	
TN13	-	Compartment 6. TQ561 535. Scots pine 90cms dbh (Photo 12).	
TN14	-	Compartment 6. TQ561 534. Beech.	

<sup>27</sup> There are 56 “habitats of principal importance” on the S41 list. These are the habitats in England identified in the UK Biodiversity Action Plan which continued to be priorities in the new UK Post-2010 Biodiversity Framework

<sup>28</sup> All hedgerows consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species are considered to be UKBAP priority habitat [jncc.defra.gov.uk/Docs/UKBAP\\_BAPHabitats-17-Hedgerows.doc](http://jncc.defra.gov.uk/Docs/UKBAP_BAPHabitats-17-Hedgerows.doc)

<b>Cmpt No / Target Note</b>	<b>Phase 1 Habitat Type (Area)</b>	<b>Description</b>	<b>Species recorded (Abundance (DAFOR<sup>26</sup>)) during 2017 walkover</b>
		advisory to footpath (Photo 13).	
TN15	-	Compartment 7. TQ561 533. Beech plateau (Photo 19).	
TN16	-	Compartment 7. TQ561 533. Relict earth bank. Possible former boundary.	
TN17	-	Compartment 7. TQ561 533. Beech advisory to bridleway (Photo 20).	
TN18	-	Compartment 9. TQ560 533. Sunken Lane / earthwork (Photo 26). One very large beech.	
TN19	-	Compartment 9. TQ562 533. Boundary beech TQ562 533 (Photo 27).	
TN20	-	Compartment 9. TQ562 533. Beech advisory to bridleway (Photo 28).	
TN21	-	Compartment 9. TQ562 533. Veteran beech coppice apparently in good condition.	
TN22	-	Compartment 9. TQ563 533. Large oak (Photo 29).	
TN23	-	Compartment 8. TQ565 533. Advisory beech with damage to trunk, sways to wind (Photo 23).	
TN24	-	Compartment 8. TQ565 533. Oak to bridleway advisory (Photo 24).	
TN25	-	Compartment 8. TQ566 534. Beech advisory to bridleway. Split and bracket fungi <i>Ganoderma</i> .	
TN26	-	Compartment 8. TQ566 535. Open glade dominated by bracken (Photo 22).	

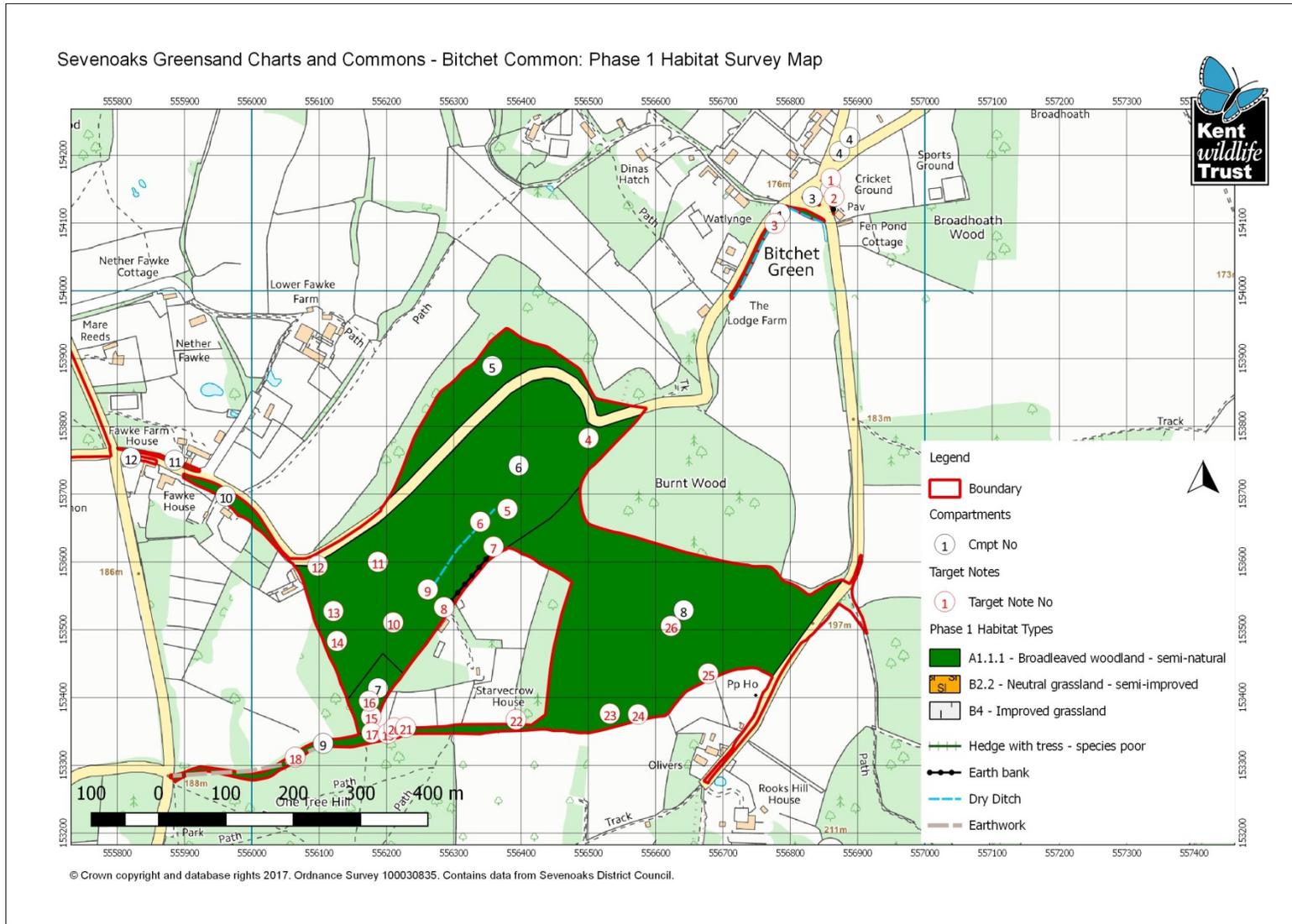


Figure 5: Bitchet Common. Phase 1 Habitat Map, based on site walkover survey June 2017

### 3.4 Preliminary Woodland Condition Survey

A preliminary woodland condition survey was undertaken for the main wooded compartments 1, 4, 5, 6, 8, 9, 10 and 11 (Figure 5). The results are presented in Tables 2 - 9 below. The Species / Structure / Age Class data has also been presented in a series of bar charts, attached at Appendix D.

Table 2: Bitchet Common Compartment 1. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Mixed Broadleaved Semi-natural Woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Ash STA 50cms dbh 10% Ash STA 20cms dbh 20% Ash SET 10% Ash SA 10% Beech STA 20cms dbh 10% Sycamore STA 30cms dbh 30% Sycamore SET 20% Field Maple COP 10% Hazel COP 20% Oak SA 10%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Linear woodland shaw to field and lane with ash and sycamore as the dominant standard trees.

Table 3: Bitchet Common Compartment 4. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Mixed Broadleaved Semi-natural Woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET)	Field maple STA 10% Oak STA 60cms dbh 10% Ash STA 30cms dbh 10% Ash STA 20cms dbh 10% Sycamore STA 20cms dbh 20% Sycamore SET 10%

Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Beech STA 20cms dbh 10% Hazel US 10% Hawthorn US 10%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Two small fragments of broadleaved semi-natural woodland dominated by sycamore and bounded by roads.

Table 4: Bitchet Common Compartment 5. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural Woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Ash COP 60% Hazel COP 40% Oak STA 60cms dbh 20%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	A steep-sided pit or former workings to roadside within a more extensive

	shaw that is not included within the Common. This area is dominated by ash and hazel coppice, where the ash forms a canopy together with oak standards.
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Table 5: Bitchet Common Compartment 6. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Oak STA specimen 150cms dbh 10% Oak STA 60cms dbh 10% Oak STA 40cms dbh 10% Beech STA 60cms dbh 10% Beech STA 50cms dbh 10% Beech STA 30cms dbh 10% Scots Pine STA 90cms dbh 10% Yew STA 60cms dbh 10% Birch SET 60% Sweet Chestnut COP 4/50cms dbh 10% Sweet Chestnut COP 20cms dbh 10% Sweet Chestnut SA planted 10% Whitebeam SA 10% Rowan SA 10% Hazel US 20%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	None observed.
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	Decaying Wood 5% Fallen Wood 100%
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	Dry ditch.
<b>General Comments:</b>	Secondary birch woodland establishing over open scattered standard trees with occasional sweet chestnut coppice. It is possible that this compartment may formerly have been managed as wood pasture / wooded heath.

Table 6: Bitchet Common Compartment 8. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT)	Oak STA 90cms dbh 10% Oak STA 80cms dbh 10% Oak STA 60cms dbh 20% Oak STA 50cms dbh 10% Oak STA 30cms dbh 10% Beech MAT 70cms dbh 10% Beech STA 80cms dbh 10% Beech STA 70cms dbh 10% Scots Pine STA 50cms dbh 10%

Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Yew STA 40cms dbh 10% Yew SA 10% Birch SET 80% Rowan SA 10% Whitebeam SA 10% Sweet Chestnut COP 5/20cms dbh 10%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	None observed.
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	Decaying Wood 5%.
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Oak matures towards the lane. Possible former wood pasture / wooded heath habitat.

Table 7: Bitchet Common Compartment 9. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Oak STA 50cms dbh 10% Beech STA 120cms dbh 10% Beech STA 20cms dbh 10% Sweet Chestnut STA 80cms dbh 10% Sweet Chestnut COP 20cms dbh 10% Yew EST 10% Birch SET 80% Holly EST 10% Holly US 20% Aspen COP 4/20cms dbh 10% Rowan 2/20cms COP dbh 10% Field Maple COP 5/20cms dbh 10% Hazel US 10%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Compartment generally dominated by beech and holly, with birch establishing throughout the western end. Compartment includes mature beech and at least one veteran beech coppice.

Table 8: Bitchet Common Compartment 10. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Ash STA 20% Sycamore STA 20cms dbh 5% Sycamore EST 20% Sycamore SET 20% Sycamore US 10% Beech STA 60cms dbh 5% Field Maple STA 10% Yew US 10% Holly COP 10% Hazel US 10%
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b> <b>Standing:</b> <b>Fallen:</b>	
<b>Invasive Species:</b>	Cherry laurel, rhododendron.
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Narrow woodland shaw to house and gardens adjacent to lane.

Table 9: Bitchet Common Compartment 11. Preliminary Woodland Condition Survey

Feature	Description
<b>Woodland Type:</b>	Broadleaved semi-natural woodland.
<b>Habitat Type:</b> e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
<b>Species / Structure / Age Class:</b> Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species)	Sycamore STA 40% Hawthorn US 10% Holly US 10% Cherry US 5% Privet US 10% Hazel US 20%

Percentages where given are rough percentages of that feature	
<b>Ground Flora:</b>	See Table 1 Ch 3.3.
<b>Fungi:</b>	
<b>Decaying Wood:</b>	
<b>Standing:</b>	
<b>Fallen:</b>	
<b>Invasive Species:</b>	
<b>Deer Damage:</b>	
<b>Historic Features:</b>	
<b>General Comments:</b>	Narrow woodland shaw.

### 3.5 Veteran Tree Survey

One veteran tree was observed within Compartment 9. Further details are given in Table 10 below:

Table 10: Bitchet Common. Preliminary Veteran Tree Check

Species	Type	Location	Approx DBH	Photo	Comments
Beech	Coppice	Compartment 9 (TN21) TQ562 533	-		Appears to be in good condition.

### 3.6 Species

Table 11 below provides a summary of the species information obtained as part of the desktop study.

Table 11: Bitchet Common. Protected / notable species which either occur within, or have the potential to occur within or close to Bitchet Common

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
Vascular Plants	<p>One protected species – bluebell <i>Hyacinthoides non-scripta</i> was recorded during the survey visit.</p> <p>Booth (2011) recorded least yellow-sorrel <i>Oxalis exilis</i> in the southwestern part of the Common equating to Compartment 6 / 7 (Figure 5).</p> <p>Heathy vegetation including bilberry, heather and gorse are present in more open areas such as along paths and under the power line in Compartment 6. Bracken</p>	<p>Bluebell</p> <p>Least yellow-sorrel<sup>CS</sup></p>	<p>Bluebell: listed on Schedule 8 of the Wildlife &amp; Countryside Act (as amended). Protection is limited to 'sale' only<sup>29</sup>.</p> <p>'CS' = County Scarce i.e. occurring in 12 – 52 tetrads in Kent.</p>

<sup>29</sup> <http://naturenet.net/law/sched8.html>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	was also observed to be locally dominant, particularly in the more open woodland conditions within Compartments 6 and 8.		
Lower Plants	A local fungi expert, Joyce Pitt, is of the opinion that Bitchet Common is of significant value for its fungi (J Pitt pers. comm). KMBRC has records attributed to Bitchet Common of four county important fungi and one bryophyte.	Destroying Angel <i>Amanita virosa</i> <sup>K</sup> <i>Mycena corynephora</i> <sup>K</sup> Tinder bracket <i>Fomes fomentarius</i> <sup>K</sup> Gilded brittlegill <i>Russula aurea</i> <sup>K</sup> Smaller white-moss <i>Leucobryum juniperoideum</i> <sup>K</sup>	'K' = included in the Kent Red Data Book.
Birds	There are no bird records directly attributed to Bitchet Common. The Common is however likely to support a range of nesting common woodland birds.		All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended) <sup>30</sup> .
Bats	Eleven species of bat, of the 15 species recorded in Kent, have been recorded within the search area. The nearest identified roost (unknown type) is located in the centre of Bitchet Common within the curtilage of Starvecrow House. A second roost (unknown type) has been identified to the northeast of the Common at Bitchet Green. Bats are likely to use the Common for foraging and commuting and it is likely that some of the mature trees may have bat roost potential. Their presence on site should not be discounted.	Serotine, Alcatheo, Daubenton's, Whiskered, Natterer's, Leisler's, Noctule*, Nathusius' pipistrelle, Pipistrelle (45kHz), Pipistrelle (55kHz)*, Brown long-eared*	Afforded full legal protection under Schedule 5 of the WCA 1981 (as amended). Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 <sup>31</sup> and are therefore "European Protected Species". Those species marked with "*" are considered to be Species of Principal Importance in England (formerly UKBAP) <sup>32</sup> .
Badgers	No records and no evidence observed during the site walkover. The nearest records relate to Rooks Hill, approximately 200m south. The Common contains suitable foraging habitat and has good links to		Badgers and their setts are protected by the Protection of Badgers Act 1992 <sup>33</sup> .

<sup>30</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://jncc.defra.gov.uk/page-1377>

<sup>31</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

<sup>32</sup> <http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

<sup>33</sup> A summary of the Protection of Badgers Act is available at <http://adlib.eversite.co.uk/adlib/defra/content.aspx?doc=18122&id=18124>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	the wider countryside. They are considered likely to be present.		
Hazel Dormouse	<p>English Nature (2001) indicates that dormice have been recorded in the area of the north-facing slopes of the Common.</p> <p>The nearest KMBRC records relate to dormice at Rooks Hill, approximately 200m to the south.</p> <p>Bitchet Common has good links to extensive areas of woodland incorporating Rooks Hill and their presence should not be discounted.</p>	Hazel Dormouse	<p>Afforded full legal protection under Schedule 5 of the WCA 1981 (as amended). Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010<sup>34</sup> and therefore a "European Protected Species".</p> <p>A Species of Principal Importance in England (formerly UKBAP) and is included on Schedule 5 of the WCA 1981 (as amended)<sup>35</sup>.</p>
Reptiles	<p>The data search has no records of reptiles occurring on the Common itself. Three reptile species have been identified within the wider search area, with the closest recorded observation being slow-worm, located at One Tree Hill, 0.57km to the southwest.</p> <p>There are areas of the Common – such as woodland edges, rides, clearings and the wayleave which may be suitable for reptiles – and KRAG considers that there is high possibility of grass snake, and a likely possibility of slow-worm and adder occurring on site and so their potential presence should not be discounted.</p>	Grass snake Slow-worm Adder	All reptile species likely to be encountered at Bitchet Common are protected against killing & injury under Schedule 5 of the WCA 1981 (as amended) and are also Species of Principal Importance (formerly UKBAP Priority Species).
Amphibians	<p>The data search has no records of amphibians occurring on the Common itself. Four amphibian species have been identified within the wider search area – common frog, common toad, palmate newt and great crested newt.</p> <p>The closest recorded great crested newt observation is a historical recorded located at</p>	Common frog Common toad Palmate newt Great crested newt	<p>Great crested newts are afforded full legal protection under Schedule 5 of the WCA 1981 (as amended)<sup>36</sup>. Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010<sup>37</sup> and therefore a "European Protected Species".</p> <p>Great crested newts and</p>

<sup>34</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

<sup>35</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://jncc.defra.gov.uk/page-1377>

<sup>36</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://jncc.defra.gov.uk/page-1377>

<sup>37</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	<p>Knole Park, 1.91km to the west.</p> <p>There are no ponds on the Common, although 12 are identified within a 1km-radius. KRAG has assessed that common frog, common toad and palmate newt are highly likely to occur on site; they also consider that smooth newt and great crested newt may occur.</p> <p>Amphibians may use the Common for foraging, sheltering and commuting and their potential presence should not be discounted.</p>		common toads are Species of Principal Importance in England (formerly UKBAP).
Invertebrates	<p>The NE SSSI citation (Appendix B) says that the invertebrate fauna has not been extensively investigated., but flags up several species of interest within the SSSI, including a large and distinctive slug <i>Tandonia rustica</i>, which was discovered on the SSSI for the first time in Britain in 1986 as well as two nationally scarce snails, the point snail <i>Acricula fusca</i> and Rolph's door snail <i>Macrogastera rolphii</i>, both of which are typically found in ancient woodland. It also highlights the SSSI as being the only known Kent site for the bristletail <i>Dilta hibernica</i>.</p> <p>The data search has very few records attributable to Bitchet Common, and does not include Bitchet Common as a location for any of the aforementioned species. It does include records of three S41 moth species – brindled beauty <i>Lycia hirtaria</i>, buff ermine <i>Spilosoma lutea</i>, and deep-brown dart <i>Aporophyla lutulenta</i>.</p>	<p>Brindled beauty<sup>S41</sup></p> <p>Buff Ermine<sup>S41</sup></p> <p>Deep-brown dart<sup>S41</sup></p>	Those species marked with 'S41' are Species of Principal Importance (formerly UKBAP Priority Species).

The KMBRC datasearch highlighted the presence of one non-native vascular plant species on the Common which is included on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended):

- Himalayan Balsalm *Impatiens glandulifera*

A second Schedule 9 species, rhododendron *Rhododendron ponticum*, has been recorded on the site previously, when extensive stands were noted in Compartment 8 along the boundary with Burnt Wood (Isabel Sturdy, 2012). Some rhododendron was observed in Compartment 10 during the 2017 site walkover.

It is illegal to 'plant or otherwise cause to grow in the wild' species included on Schedule 9.

The site walkover confirmed the presence of another non-native invasive species, cherry laurel *Prunus laurocerasus* in Compartment 10. No other non-native species were recorded.

### **3.7 Identification of Access Issues**

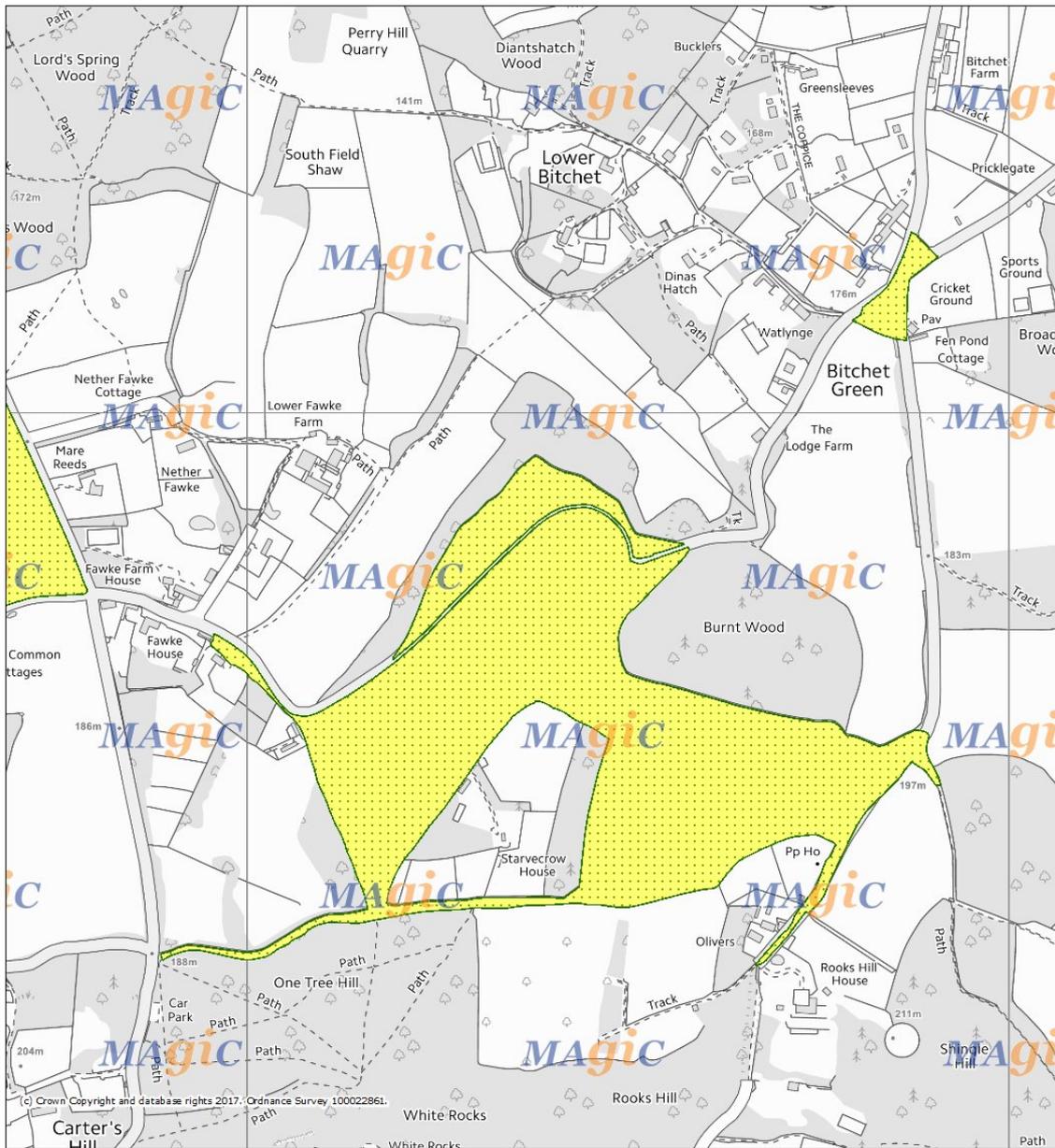
Bitchet Common is designated as Registered Common Land and has been mapped as Access Land under the Countryside and Rights of Way Act 2000 (Figure 6).

Four Public Rights of Way (PROW) cross Bitchet Common, with a Public Bridleway skirting the southern boundary (Figure 7). Walkers, with and without dogs, were observed during the walkover survey.

There are no PROWs across Bitchet Green.



**Bitchet Common Access Land**



**Legend**

- Registered Common Land (England)
- Countryside and Rights of Way Act 2000 - Access Layer (England)

Projection = OSGB36  
 xmin = 555400  
 ymin = 153300  
 xmax = 557400  
 ymax = 154300  
 Map produced by MAGIC on 11 July, 2017.  
 Copyright resides with the data suppliers and the map must not be reproduced without their permission.  
 Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

Figure 6: Bitchet Common. Access Land

### Bitchet Common PROW



July 11, 2017

- Public Rights of Way**
- Public Footpath
  - Byway open to all traffic
  - Public Bridleway
  - Restricted Byway

1:5,000  
 0 0.0425 0.085 0.17 mi  
 0 0.05 0.1 0.2 km  
 2015 Crown Copyright Ordnance Survey  
 Kent County Council

Produced by: KCC GIS Development Team  
 Copyright Kent County Council 2017

Figure 7: Bitchet Common. Public Rights of Way Map. *NB There are no PROW on Bitchet Green*

## 4 ENHANCEMENT OPPORTUNITIES

### 4.1 Site Evaluation

Bitchet Common was found to be dominated by broadleaved woodland, with discrete areas of semi-improved / improved grassland identified at Bitchet Green.

All of the woodland has been identified as either lowland mixed deciduous woodland or beech and yew woodland, both of which are Priority Habitats i.e. they are listed on S41 as Habitats of Principal Importance in England (formerly UK BAP Priority Habitat), whilst the Magic website also describes Compartment 6 as wood pasture, again categorised as a Priority Habitat, but also included within the ‘Lowland Wood-pasture and Parkland’ Kent Habitat Action Plan (Plan 16, 2005a).

None of the woodland is shown as ancient woodland on the Magic website, and the site walkover survey found no evidence to suggest that the woodland at Bitchet Common is of ancient origin. However, there is evidence to suggest that areas of the Common – particularly Compartments 6 and 8 – may have been more open historically and supported a vegetation community more akin to wood pasture / wooded heath.

In addition to the wood pasture identified on the Magic website (Compartment 6), historic mapping from 1871 – 1890<sup>38</sup> (Appendix E), also shows the southern part of the Common (more or less equating to Compartment 8) as being open, most likely heathland. The general impression from the site walkover survey was also that these two compartments retained characteristics pointing towards a former history of wood pasture / wooded heath (Ch 3.3, Table 1). Furthermore, open areas within these two compartments – such as found along path edges and the wayleave under the power lines, were also observed to support a more heathy vegetation including heather, bilberry, and bracken – with the latter species dominant in some areas.

The walkover survey also identified the presence of several earth banks and a dry ditch, which it is thought may have marked historic boundaries – possibly for the management of grazing stock.

Further evidence is presented within the Bitchet Green Management Plan 2012 – 2022 (North West Kent Countryside Partnership / Kent Wildlife Trust) which suggests that much of the site may have been a grazed heathland in days gone by and says, “*In the past, Bitchet Common would have been managed by commoners grazing their animals, creating areas of open heath within the woodland. With changes in farming practices over the past century, grazing has ceased on the common, leading to the woodland gradually re-colonising the open areas.*”

Wood pasture is generally considered to be a vegetation structure rather than a particular plant community, typically consisting of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras. The value for this priority habitat type comes from the range of specialised and varied habitats found within the landscape. The presence of ancient or veteran trees provide such microhabitats as old bark, dead or decaying wood, holes and splits that support a range of

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<sup>38</sup> Available to view on line at <http://webapps.kent.gov.uk/KCC.KLIS.Web.Sites.Public/ViewMap.aspx>

insects, fungi and lichens. The grassland component of the complex is frequently grazed and provides open vegetation and habitat for a variety of plants and animals. Dung from grazing animals adds a further component to the invertebrate and fungal diversity of this habitat. The importance of this complex comes from the long continuity in the management and/or the structure of the land, with very long-lived trees supporting significant amounts of dead and decaying timber (Kent Habitat Survey, 2012).

However, Bitchet Common is designated as a SSSI and is categorised by Natural England as 'Broadleaved, Mixed and Yew Woodland – Lowland'. It was assessed most recently in 2011 and found to be in 'Favourable Condition'<sup>39</sup>.

Given that both mixed deciduous woodland and wood pasture are Priority Habitats, consideration could be given as to whether the Common should continue to be managed as a woodland habitat, or whether a more ambitious project to restore the wood pasture / wooded heath across parts of the Common could be considered. In practice, the two need not be incompatible: English Nature consented works in 2001 for two heathland restoration trials (in Compartments 6 and 8) and commented that, "*The objectives of Sevenoaks District Council and English Nature are broadly compatible...*"; and part of the current Vision for the Common as outlined in the Vision for the Bitchet Green Management Plan (October 2011) is to, "...restore and re-establish the mosaic of wooded heath and open heathland across the site..."

There have been management works, based on maintenance of rides and glades (Sevenoaks District Council, undated), as well as bracken control and clearance of seedling birch in areas of existing heathy vegetation (Isabel Sturdy, 2012) and ongoing clearance of the power line easement, which has maintained and enhanced populations of some heathland indicators such as heather and bilberry. Consultation could consider the feasibility of extending these areas, creating linkages to encourage spread of both plant and animal species which, in time could lead to the development of a diverse heathland community.

Re-establishing areas of wood pasture may also involve thinning of some of the canopy trees and rotational coppicing of the understorey in order to create 'halos' around some of the mature trees. Ideally grazing would be considered as a tool to create a much more open structure, so important within wood pasture / wooded heath. Without grazing pressure, creation / maintenance of a wood pasture / wooded heath structure is considered unlikely to be achievable here.

It should however be noted that given its status as an SSSI, any discussions relating to changes in management must involve Natural England.

One veteran tree – a veteran beech coppice – was identified in Compartment 9 during the site walkover, although it is considered likely that there are more. The survey also identified a number of mature / very mature trees, some of which are likely to have bat roost potential. Any management to these trees should consider the potential for bat roosts to be present.

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<sup>39</sup> SSSI Condition Assessment available to view at <https://designatedsites.naturalengland.org.uk/ReportUnitCondition.aspx?SiteCode=S1000317&ReportTitle=One%20Tree%20Hill%20and%20Bitchet%20Common%20SSSI>

Ash is a component within the broadleaved woodland areas. Although no evidence of ash dieback was observed during the walkover survey, the Forestry Commission has confirmed that ash dieback disease was confirmed in TQ55 in 2014<sup>40</sup>. Ongoing monitoring will therefore be required.

A boundary hedgerow was recorded in Compartment 2 (TN1, Table 1 Ch 3.3). The hedgerow comprised more than 80% native species and is therefore considered to meet the criteria for being considered a S41 Habitat of Principal Importance in England (formerly UKBAP Priority Habitat). Consultation could include the possibility of traditional hedgerow management here.

The discrete areas of grassland at Bitchet Green have been identified as semi-improved neutral grassland / improved grassland. Both are extremely common habitat types in Kent, occupying 7.3% and 29.7% of the County respectively (Kent Habitat Survey, 2012). Both grassland types were found to be grass-dominated, supporting a restricted range of common herbaceous plant species characteristic of high recreational usage. No notable species were recorded within these grassland areas and neither can be classed as Priority Habitats. The grassland is currently managed by mowing, and it is recommended that it should continue to be cut as required in order to maintain the existing sward structure.

The data search indicated that two non-native species listed on Schedule 9 have been recorded on the Common (Ch3.6) – Himalayan balsam and rhododendron.

No evidence of Himalayan balsam was recorded during the 2017 site walkover. However it is recommended that the Common should be monitored for this species and steps taken to eradicate or control this species as appropriate.

A survey carried out in 2012 identified dense stands of rhododendron, occurring mainly along the boundary with Burnt Wood (i.e. along the northern boundary of Compartment 8 (Figure 5)) (Isabel Sturdy, 2012). At the time of the 2017 site walkover, this area was found to be very scrubby with no obvious evidence of rhododendron, although some rhododendron was found along the northwestern boundary of the Common in Compartment 10. Rhododendron is an extremely invasive species and may form dense, impenetrable thickets with the resulting deep shade and toxic leaf litter suppressing growth of native plants. It is also of limited value to wildlife and may negatively impact some groups e.g. research has shown that bird numbers are lower in mature oak woodlands dominated by rhododendron<sup>41</sup>. Whilst the rhododendron identified within Compartment 10 was not considered to be a particular problem on the Common at this time, it is recommended that the Common should be monitored and steps taken to eradicate or control this species as appropriate.

Cherry laurel was also recorded in Compartment 10 during the site walkover. Cherry laurel poses problems similar to rhododendron: it is evergreen and shade-tolerant and has adapted well to our climate. It is unpalatable to stock and tends to grow unchecked with the result that in time it will shade out any woodland understorey and prevent woodland regeneration. It was not considered to be a particular problem on the Common at the moment and, for that reason, it is recommended that actions should be limited to monitoring its spread and taking action to control further development where appropriate.

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<sup>40</sup> <http://chalamap.fera.defra.gov.uk/>

<sup>41</sup> [www.nonnativespecies.org/downloadDocument.cfm?id=1018](http://www.nonnativespecies.org/downloadDocument.cfm?id=1018)

Bitchet Common has good links with adjacent areas of high biodiversity value including One Tree Hill, Rooks Hill, Fawke Common and Knole Park and is therefore able to support a greater range and abundance of species than would otherwise be expected to occur within a site of this size. The data search suggests that Bitchet Common is likely to be of significant interest for fungi. It may also be of potential interest for a number of other groups including: bats, where eleven species have been recorded in the search area and hazel dormouse. The invertebrates have not been extensively investigated, but with the confirmed presence of several notable species in the wider SSSI, targeted survey work at appropriate times would help to establish the invertebrate interest here.

For the protected species flagged within Chapter 3.6, it is recommended that survey work should aim to establish the presence / absence of protected species within the Common as their presence will need to be taken into account when planning any management works in order to ensure compliance with all relevant legal obligations with regards to protected species.

It is interesting to compare the Google aerial photographs of the Common (Appendix C) dating from 1940 to 2007, as these chart the changes in the proportion of open space / trees.

## **4.2 Preliminary Habitat Management**

### **4.2.1 Preliminary Habitat Management Suggestions**

The objective of this report is to provide a series of outline nature conservation management recommendations aimed at maintaining and enhancing the main habitats and species of nature conservation interest identified within this report. It is anticipated that these initial recommendations will form the basis of additional consultation with the landowners and other stakeholders, prior to the preparation of a bespoke management plan for the Common, which is likely to happen during the delivery phase of this project.

It should be noted at the outset that any work undertaken within the SSSI will require prior consultation with Natural England

Further details are provided below.

#### **4.2.1.1 Management of Existing Woodland Areas**

- Maintain structural diversity as a good variety of woodland and scrub at different ages and structure will be beneficial to species known to inhabit the Common, or which may have the potential to be present, such as breeding birds, invertebrates, mammals such as hazel dormouse and bats, and reptiles.
- Maintain all traditional woodland features such as internal woodbanks.
- Retain all existing veteran / mature trees wherever possible. These are considered to be features of the former wood pasture / wooded heath habitat, and would have traditionally grown in open sunny conditions. Such trees would have supported different invertebrate species from those growing in

closed canopy woodland, and ideally there will be a continuum of trees standing in the open, especially mature and ancient trees. This may involve selectively thinning some younger trees in areas where denser woodland is developing.

- Consider opportunities for increasing the number of potential veteran trees by selecting standards for bespoke management which may include pollarding and coronet cuts.
- Maintain a range of both standing and fallen dead wood. A continuity of dead wood at all stages of decay is vital in providing optimal habitats for species groups already highlighted as being of importance within the Common such as fungi and invertebrates, and potentially also roosting bats.
- Enhance the overall percentage of open areas within the Common. Sheltered and sunny open areas, such as along ride edges, and in scallops or glades, also support a greater abundance and variety of flowering plants and shrubs, providing valuable nectar and pollen sources for invertebrates. Target areas close to existing heathy areas with the aim of providing connecting habitat and encouraging spread of heathland plants and animals.
- Undertake consultation on whether the introduction of light grazing may be feasible within the Common. The results of this consultation will inform the decisions for the future management objectives for the Common.
- Rhododendron & Cherry Laurel Eradication / Control. The following recommendations are taken from the Kent Wildlife Trust Woodland Management Advice Sheet relating to the control of rhododendron and cherry laurel<sup>42</sup>:
  - Cut during the winter (September to March), focussing on older, seedbearing bushes first, and follow up with stump treatment immediately. Seeds dispersal tends to be very low, generally within a few metres of the bush, and research shows that destroying the oldest/core plant is more effective than starting at the edge of the infested area and dealing with younger plants and seedlings.
  - Pull up any seedlings if they come out easily and dig out any plants manually where feasible (don't leave any roots behind)
  - Treat young bushes, any regrowth from stumps and any remaining seedlings with a foliar spray mixed with an adjuvant (this breaks down the waxy layer on the surface of the leaf) between May to October. Research seems to show that these sprays are most effective on younger bushes that are less than 1.3m tall.

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<sup>42</sup> [http://www.kentwildlifetrust.org.uk/sites/default/files/kwt\\_land\\_mgt\\_advice\\_sheet\\_9\\_-\\_woodland\\_management\\_-\\_control\\_of\\_rhododendron.pdf](http://www.kentwildlifetrust.org.uk/sites/default/files/kwt_land_mgt_advice_sheet_9_-_woodland_management_-_control_of_rhododendron.pdf)

- Treat mature bushes with a stem injection treatment, if available. If not, then apply a foliar spray as for other younger bushes.
- Burn the cuttings but make sure you limit the number of fire sites since any bare ground created will result in more sites being available for the seeds to take hold.
- Some removal of toxic leaf litter may be required since nothing else will grow there.
- Ash die-back disease. All woodland areas should be monitored annually for the presence of ash dieback and if any disease is found steps should be taken according to the most up-to-date advice available<sup>43</sup>.
- Species listed on Schedule 9. All woodland areas should be monitored annually for the presence of species listed on Schedule 9 which are known to have been recorded on the Common (Ch 3.6). The location / extent of any such species should be reported to appropriate personnel and an eradication / control programme undertaken following current best practice guidance<sup>44</sup>.

#### 4.2.1.2 Management of Existing Heathy Areas

- Undertake consultation on whether the introduction of light grazing may be feasible within the Common, particularly within Compartments 6 and 8 where evidence suggests that these areas may once have been more open. The results of this consultation will inform the decisions relating to the feasibility for restoration of wood pasture / wooded heath across the Common.
- If it is not possible to establish grazing on areas of the Common, then the existing heathy vegetation will need to be maintained by mechanical or other physical management. This is likely to include, but not necessarily be limited to:
  - Maintenance of the existing mosaic of heather and bilberry. The heather in particular should be managed to provide an uneven age structure from very mature, leggy stands to young seedlings.
  - Small patches of bare ground managed to encourage colonisation by heather and to prevent colonisation by trees and scrub.
  - Control of birch seedlings / saplings within heathy areas to prevent succession to secondary woodland, although the presence of occasional birch of varying ages to maintain an open wooded heath-type habitat would be appropriate.

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<sup>43</sup> <http://www.forestry.gov.uk/forestry/infd-92pjlx>

<sup>44</sup> Such as that provided by websites including the GB non-native species secretariat <http://www.nonnativespecies.org/home/index.cfm>

- Control of bracken in heathy areas where on-site monitoring indicates it may become the dominant species, out-competing the heather, bilberry and other more delicate heathy vegetation.

#### 4.2.1.3 Management of Hedgerow

Undertake consultation to explore the feasibility / desirability of traditional hedgerow management<sup>45</sup> to maintain and enhance the wildlife value of the S41 hedgerow in Compartment 2.

#### 4.2.1.4 Management of Grassland Areas

Manage by cutting as-and-when necessary in order to maintain current sward structure.

### 4.3 Additional Survey Work

The ecological scoping survey has highlighted that Bitchet Common has a number of features and species which may merit further investigation.

A number of surveys are therefore recommended:

- A preliminary, broad brush-stroke NVC survey of the site to establish the main vegetation communities; the results may help to determine the direction of future management, particularly with identification of areas for future wood pasture / wooded heath restoration.
- Bat Survey. Surveys are recommended in order to establish the bat roost potential of the veteran trees and other mature trees within the Common. Survey work should also establish how bats are using the Common for foraging and for commuting. The results of the survey work should be used to inform management work and the requirement for any EPS licencing.
- Hazel dormouse Survey. Undertake a preliminary nut / nest search to establish whether dormice may be present within the Common. The results should be used to determine whether more detailed survey work may be required with relation to future management / EPS licencing.
- Reptile Survey. To establish current status of reptiles (and amphibians) within the Common. The results of the survey work should be used to inform management aimed at enhancing the Common for these species.
- Invertebrates. Undertake a targeted invertebrate survey, to establish the importance of Bitchet Common for this species group. The results of the survey work should be used to inform management aimed at enhancing the Common for this group.
- Lower Plant Survey. Undertake a targeted fungi survey to establish current status of fungi within Bitchet Common. The results of the survey work should be used to inform management aimed at enhancing the Common for these groups.

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<sup>45</sup> For example [https://www.rspb.org.uk/Images/Englishhedgerows1\\_tcm9-133255.pdf](https://www.rspb.org.uk/Images/Englishhedgerows1_tcm9-133255.pdf)

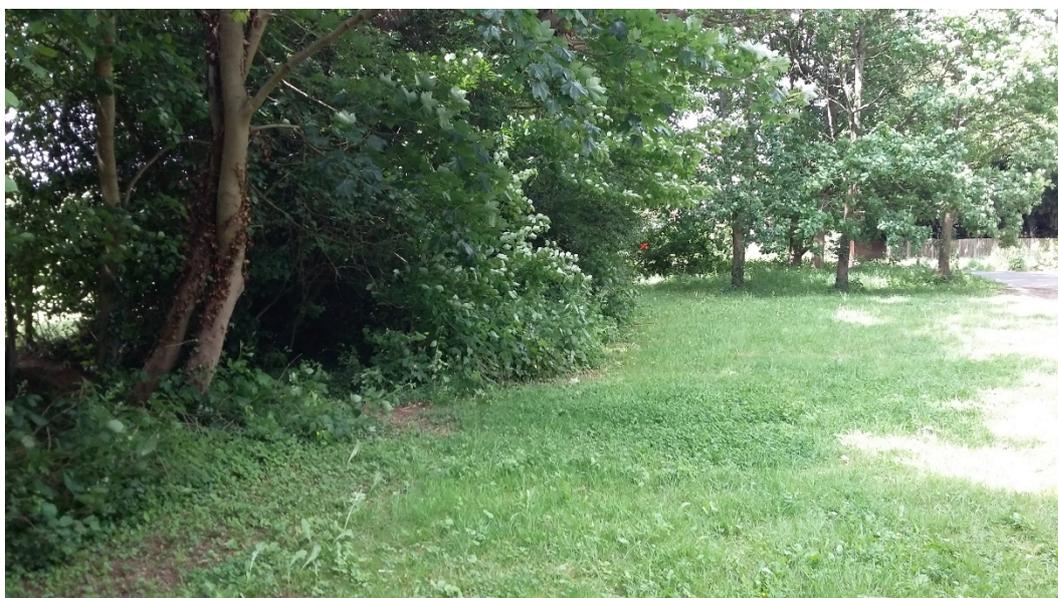
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## Appendix A: Photographs taken during the site visits June 2017



1. Compartment 1: Photograph showing woodland shaw



2. Compartment 2: Photograph showing grass verge with scattered trees. Boundary hedge (TN1) is visible on LHS



3. Compartment 2 (TN1): Photograph showing native species-poor hedgerow (S41 habitat)



4. Compartment 3: Photograph showing semi-improved grassland with scattered trees



5. Compartment 4: Photograph showing general view of compartment



6. Compartment 5: Photograph showing general view of compartment



7. Compartment 6: Photograph showing secondary birch woodland



8. Compartment 6: Photograph showing open woodland, possibly former wood pasture / wooded heath



9. Compartment 6 (TN10): Photograph showing woodland area with bracken



10. Compartment 6 (TN11): Photograph showing beech with damage



11. Compartment 6 (TN12): Photograph showing specimen oak - hybrid *Q. x rosacea*?



12. Compartment 6 (TN13): Photograph showing Scots pine; dense bracken visible in foreground



13. Compartment 6 (TN14): Photograph showing damaged beech in proximity to footpath



14. Compartment 6 (TN4): Photo showing mature beech



15. Compartment 6 (TN5): Photo showing large beech coppice stool



16. Compartment 6 (TN6): Photograph showing sunken lane or boundary ditch



17. Compartment 6 (TN8): Photograph showing boundary beech



18. Compartment 6 (TN9): Photograph showing easement



19. Compartment 7 (TN15): Photograph showing beech plateau



20. Compartment 7 (TN17): Photograph showing damaged beech in proximity to bridleway



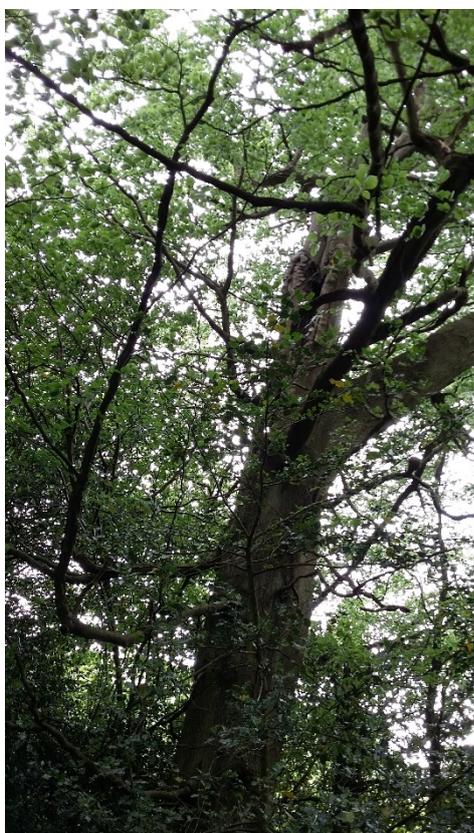
21. Compartment 8: Photograph showing PROW



22. Compartment 8: Photograph showing area of open woodland



23. Compartment 8 (TN23): Photograph showing advisory beech with damage to trunk



24. Compartment 8 (TN24): Photograph showing oak to bridleway advisory



25. Compartment 9: Photograph showing PROW with open, beech-dominated woodland



26. Compartment 9 (TN18): Photograph showing sunken lane / earthwork



27. Compartment 9 (TN19): Photograph showing boundary beech



28. Compartment 9 (TN20): Photograph showing beech advisory to bridleway



29. Compartment 9 (TN22): Photograph showing large oak



30. Compartment 10: Photograph showing general view of narrow woodland shaw



31. Compartment 11: Photograph showing narrow shaw



32. Compartment 12: Photograph showing improved grassland verge

## Appendix B: One Tree Hill and Bitchet Common SSSI Citation

COUNTY: KENT                      SITE NAME: ONE TREE HILL AND  
BITCHET COMMON

DISTRICTS: TONBRIDGE AND MAILING; SEVENOAKS

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended.

Local Planning Authority: Tonbridge & Malling District Council;  
Sevenoaks District Council

National Grid Reference: TQ 570535                      Area: 76.11 (ha.) 188.06 (ac.)

Ordnance Survey Sheet 1:50,000: 188                      1:10,000: TQ 55 SE

Date Notified (Under 1949 Act): 1951                      Date of Last Revision: 1981

Date Notified (Under 1981 Act): 1990                      Date of Last Revision: –

### Other Information:

This site lies within the Kent Downs Area of Outstanding Natural Beauty. Part of the site is owned by the National Trust.

### Reasons for Notification:

Situated to the south-east of Sevenoaks, this site comprises an extensive area of woodland of varied composition on the Lower Greensand. Some plants and invertebrates of restricted distribution are present, including the slug *Tandonia rustica* at its only known British locality.

On the plateau, in the north of the site, the Lower Greensand is overlain by angular chert drift giving rise to acidic soils. To the south there is a steep scarp slope where the exposed ragstone (a calcareous sandstone) has resulted in contrasting soils of more base-rich status. These varying soil types are reflected in the woodland composition. Much of the woodland is believed to be of ancient origin, though there are also areas of more recent and open secondary woodland.

Bitchet Common has acidic soils supporting mixed woodland: sessile oak *Quercus petraea* and beech *Fagus sylvatica* predominate together with coppice of birch *Betula* sp. and some sweet chestnut *Castanea sativa*. Other tree and shrub species present include hazel *Corylus avellana*, holly *Ilex aquifolium*, yew *Taxus baccata*, whitebeam *Sorbus aria* and rowan *S. aucuparia*. The ground flora is dominated by bracken *Pteridium aquilinum* and bramble *Rubus fruticosus* agg. whilst other species such as heather *Calluna vulgaris*, bilberry *Vaccinium myrtillus* and heath bedstraw *Galium saxatile* are also frequent. The plateau of One Tree Hill supports a similar vegetation, though here there is also dense scrub principally of hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa* and elder *Sambucus nigra*. The top of Shingle Wood, and the upper slopes of Broadhoath, Wet Bank and Martins Woods are also on similar soils to Bitchet Common. More mature trees are present in these areas and bluebell *Hyacinthoides non-scripta* is locally dominant in the ground flora.

The valley of Martins Wood contains damp, more base-rich soils. Coppiced ash *Fraxinus excelsior* often predominates here though there is also much hazel, field maple *Acer campestre* and alder *Alnus glutinosa*. Some large pedunculate oak *Quercus robur* standards occur. Bramble

and bluebell are dominant in the ground flora of the drier areas whilst in the wettest parts they are replaced by species such as opposite-leave golden-saxifrage *Chrysosplenium oppositifolium*, pendulous sedge *Carex pendula* and great horsetail *Equisetum telmateia*.

The ragstone escarpment supports woodland of varied composition. There is much neglected coppice of ash and hazel together with some mature beech. Mature wych elm *Ulmus glabra* was formerly quite frequent but many specimens have been killed by Dutch Elm Disease. A range of species characteristic of relatively base-rich soils is found amongst the ground flora: this includes dog's mercury *Mercurialis perennis*, early-purple orchid *Orchis mascula* and green hellebore *Helleborus viridis*, the latter species being scarce in Kent\*. Bryophytes (mosses and liverworts) are frequent, including a liverwort with a predominantly western distribution, *Porella arboris-vitae* -- found here at its only known locality in Kent. The escarpment is extremely steep in places and minor landslip are not infrequent. Such events open up the woodland and thus there are some areas containing dense scrub or ruderal vegetation.

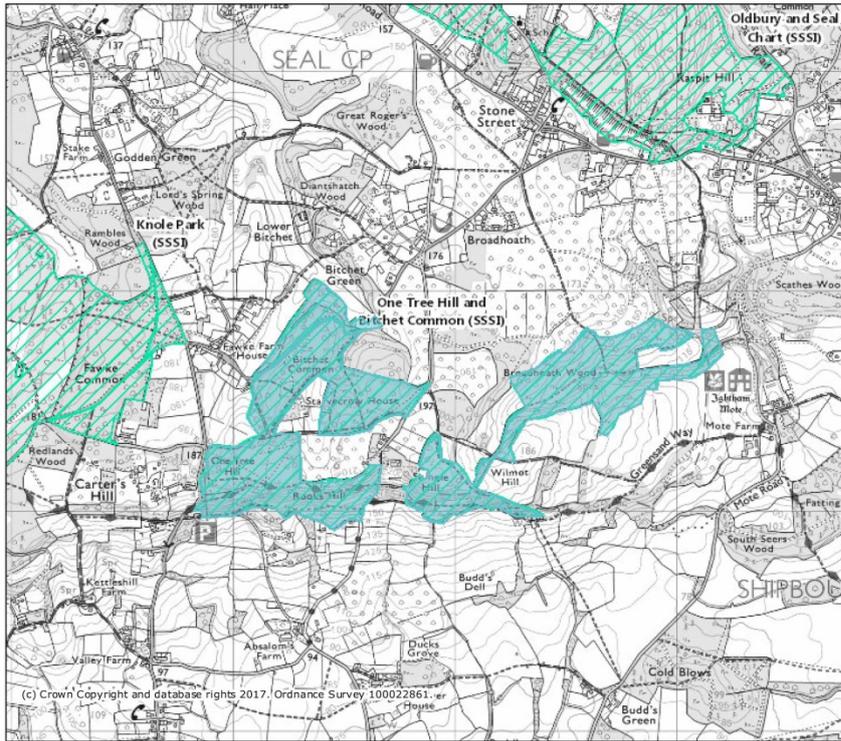
Although the invertebrate fauna has not been extensively investigated, the ragstone escarpment in particular is known to support a variety of species of interest. The large and distinctive slug *Tandonia rustica* was discovered here, for the first time in Britain, in 1986. Also present are two nationally scarce\*\* snails, the point snail *Acicula fusca* and Rolph's door snail *Macrogastera rolphii*, both of which are typically found in ancient woodland. This is also the only known Kent site for the bristletail *Dilta hibernica*.

\* Scarce in Kent: recorded from between 1 and 5% of the 2km x 2km tetrads in Kent.

\*\* Nationally scarce: recorded from between 16 and 100 10km x 10km squares in Britain.



## One Tree Hill & Bitchett Common SSSI



**Legend**

 Sites of Special Scientific Interest (England)

Projection = OSGB36  
 xmin = 553700  
 ymin = 151300  
 xmax = 560100  
 ymax = 156000  
 Map produced by MAGIC on 28 February, 2017.  
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

## Appendix C: Google Earth Aerial photographic images 1940 - 2007



Bitchet Common – 1940



Bitchet Common - 1960



Bitchet Common - 1990



Bitchet Common – 2007

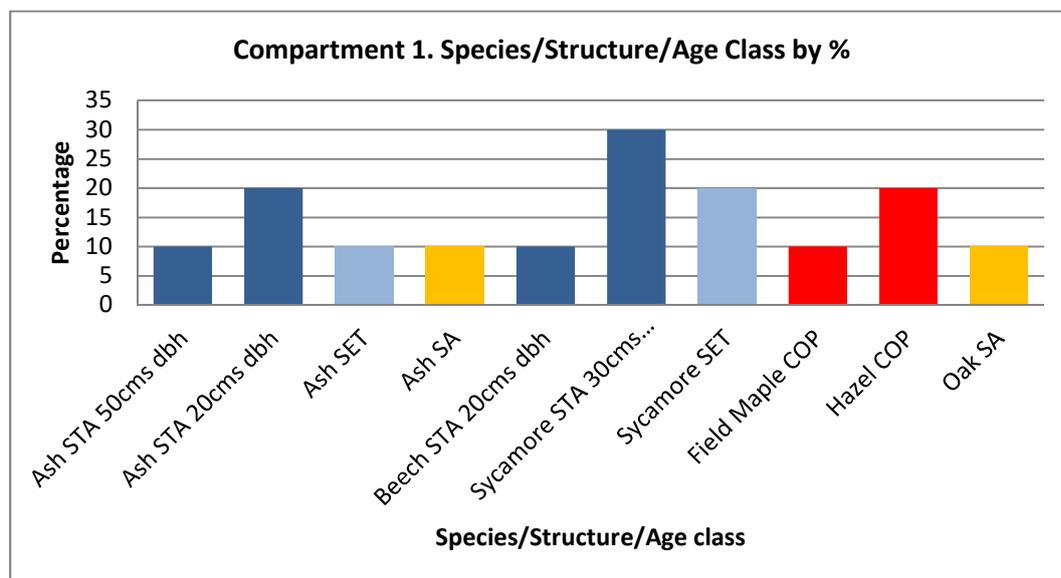
## Appendix D: Preliminary Woodland Condition Survey

The Species / Structure / Age Class data presented in tabular format within Chapter 3.4 is represented here in a series of bar charts to better illustrate the current structure of the woodland habitat

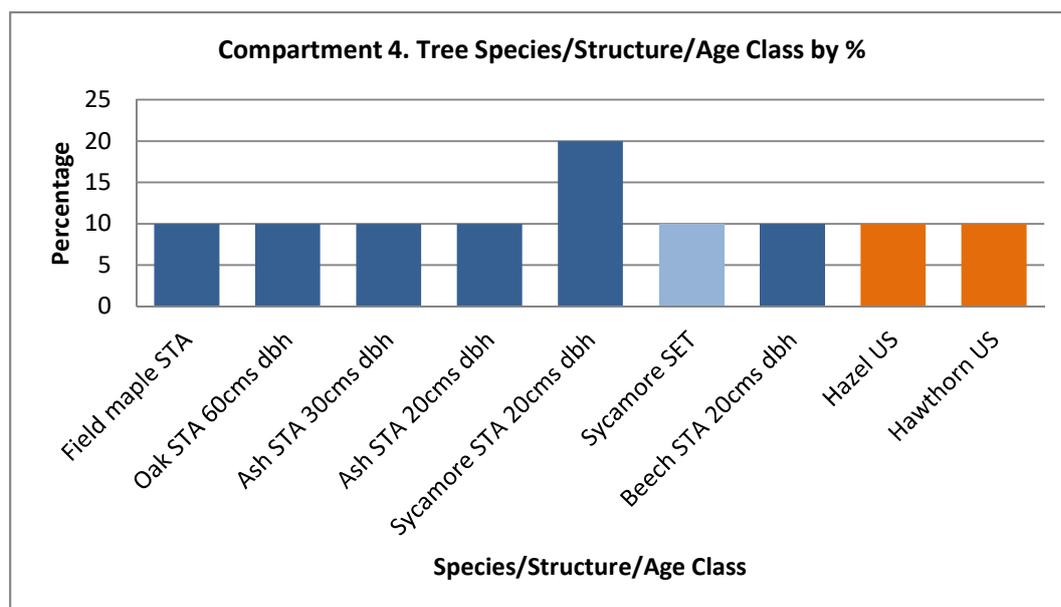
### KEY

DBH	Diameter at Breast Height, used with STA & figure e.g. 40cm
EST	Established
MAT	Mature
PLAN	Plantation
POL	Pollard
SA	Sapling
SE	Seedling
SET	Semi-established
SL	Shrub Layer
STA	Standard
US	Understorey
V	Veteran

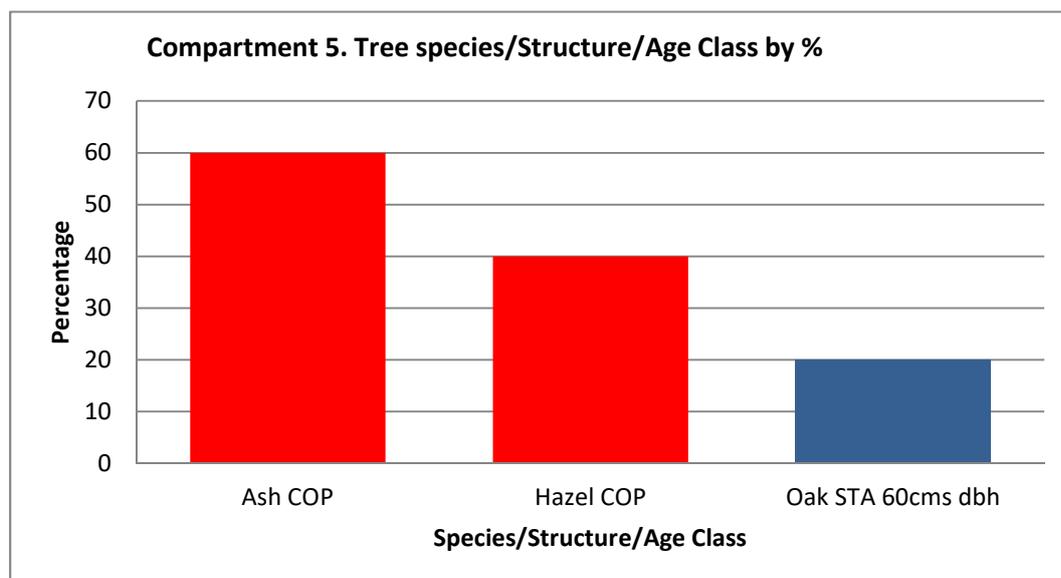
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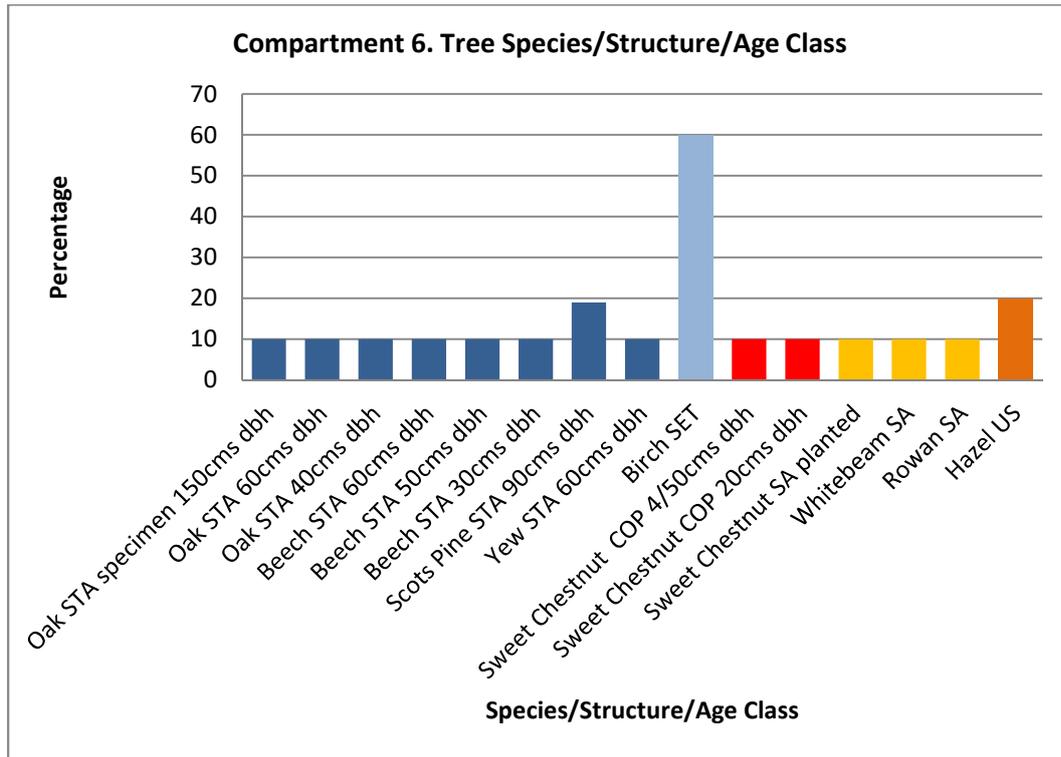
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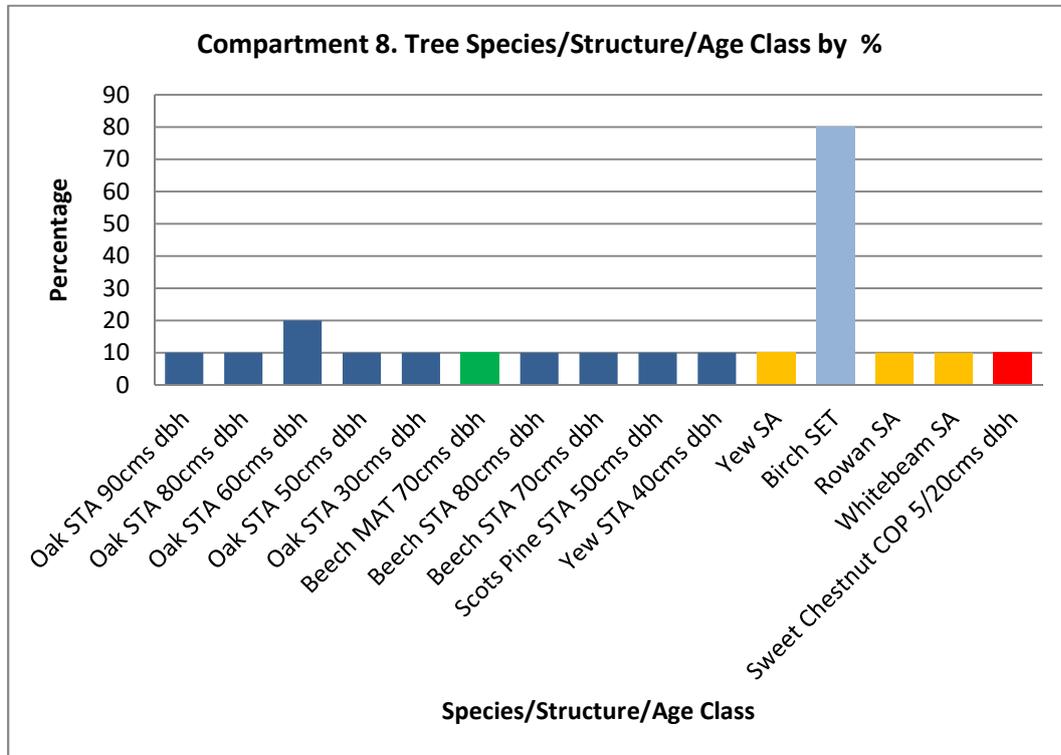
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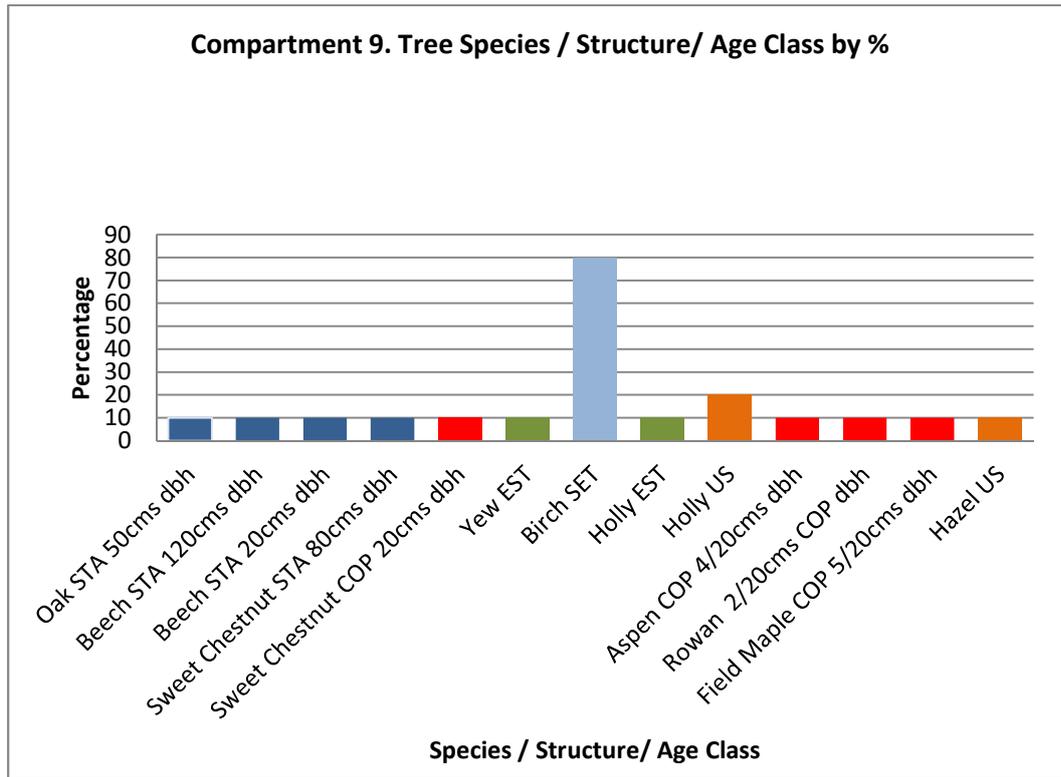
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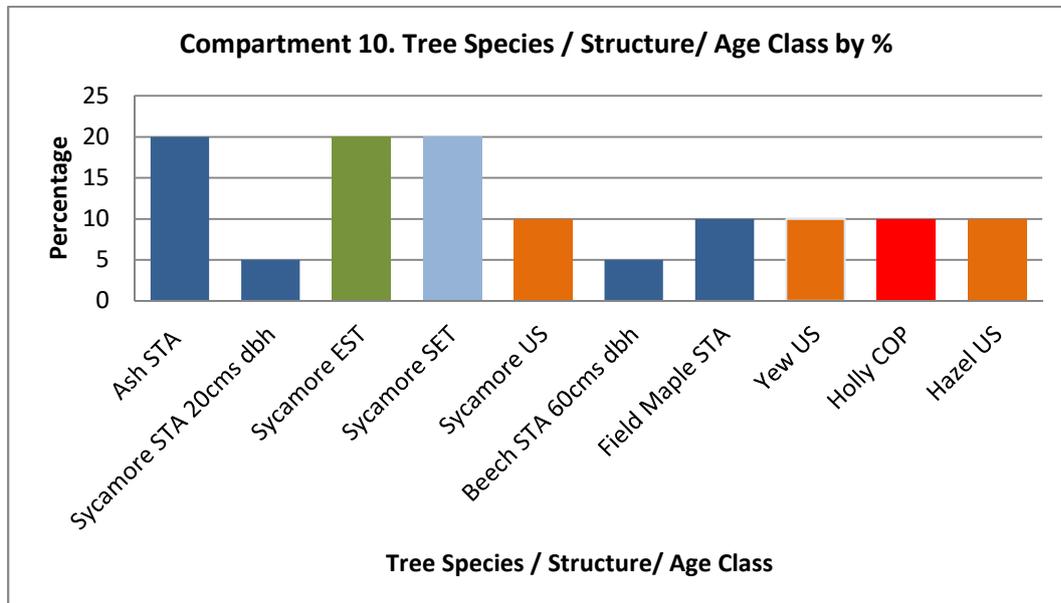
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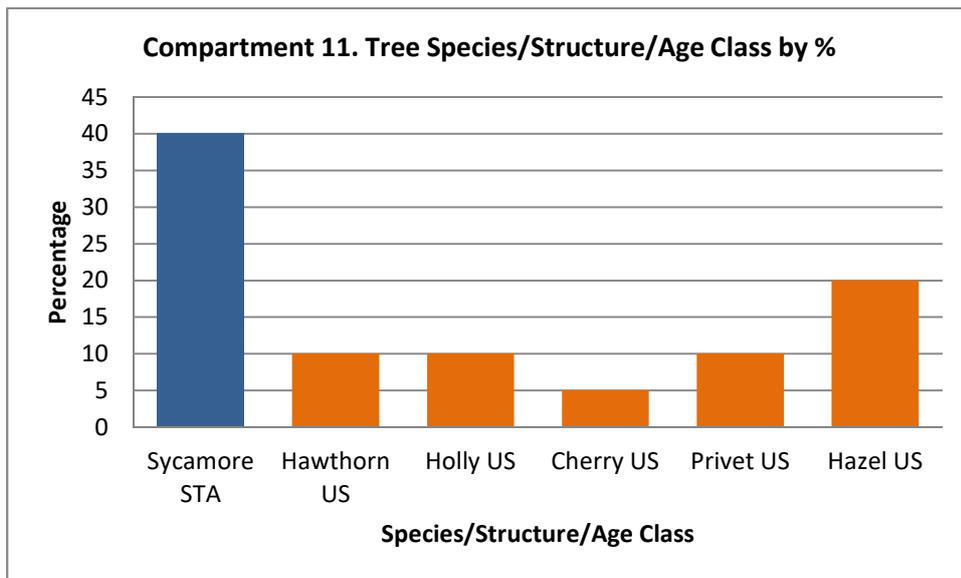
Compartment 9



Compartment 10



Compartment 11

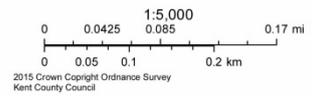


## Appendix E: Historic Mapping 1871 - 1890

Bitchet Common. Historic Mapping 1871 - 1890



July 13, 2017



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