



# Sevenoaks Greensand Commons Project Fawke Common & Godden Green

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.

Fawke Common and Godden Green are owned by the Knole Estate and managed by Sevenoaks District Council.

This report presents the findings of the desktop study and site walkover of Fawke Common and Godden Green.

#### 1.2 Survey Location / Area

Fawke Common lies approximately 1.6km to the east of Sevenoaks and towards the eastern boundary of Knole Park. The Common comprises two discrete blocks: the northernmost block extending to approximately 2.6ha and located at central OS grid reference TQ553550; the southernmost block extending to approximately 26.37ha and located at OS central OS grid reference TQ554537 – this latter block forms part of the Knole Manorial Waste woodlands.

The northernmost block is bisected along its western edge by Park Lane – the main Common area lying to the east, with a small strip of verge included to the west of the road. It is surrounded by a mix of residential housing, open grassland and hedgerows. The southernmost block is divided into four discrete areas by a series of roads including Park Lane, St Julian Road and Fawke Common Road. It is surrounded by Knole Park Deer Park to the west and north, woodland to the south and woodland, improved grassland and arable land to the east.

The southernmost block of Fawke Common abuts broadleaved semi-natural and replanted woodland which is included on the ancient woodland inventory<sup>1</sup>.

The northern block is referred to as Godden Green.<sup>2</sup>

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.

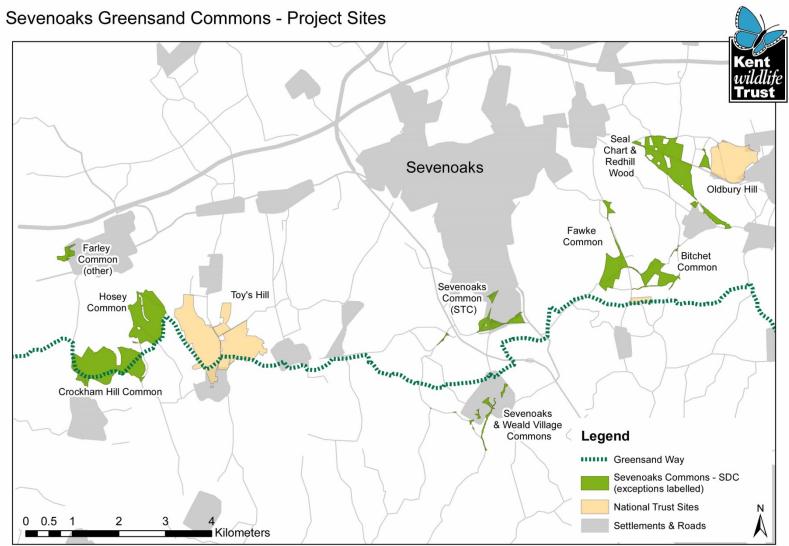
The time constraints have meant that it has only been possible to make a single site visit to the Common. This will have impacted the detailed recording of the site and limited the overall number of species recorded. However, it is unlikely to have impacted the identification / evaluation of important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

<sup>&</sup>lt;sup>1</sup> See map at

http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=ancwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmIBWI ndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=552767:152946:557815:155497&useDefaul tbackgroundMapping=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. <sup>2</sup> See Magic website link at

http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=commIndex,backdropDIndex,backdropIndex,europeIndex,vmIBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=552352:153076:557432:155624&useDefaultbackgroundMapping=false



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Figure 1: Sevenoaks Greensand Commons. Overview Map

Sevenoaks Greensand Commons Project: Fawke Common. Ecological Scoping & Outline Nature Conservation Management Plan

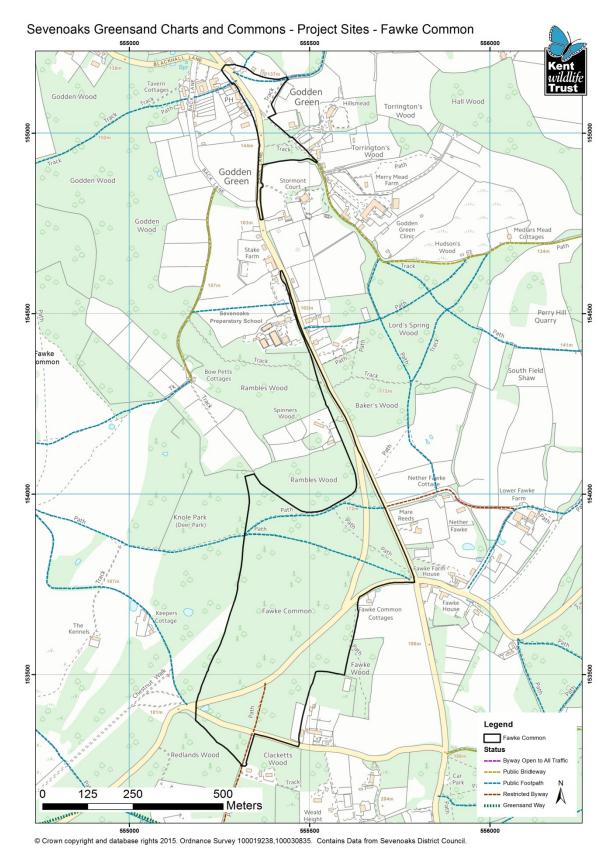


Figure 2: Fawke Common and Godden Green. Site Location and Boundary Map

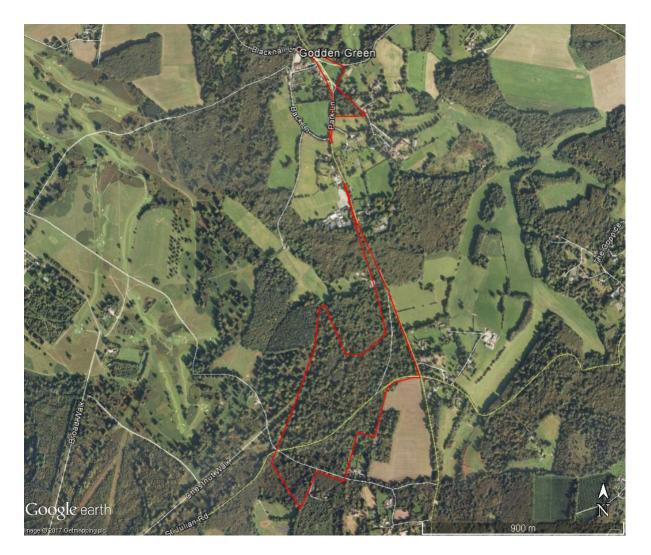


Figure 3: Fawke Common and Godden Green. Google Earth Aerial photographic extract (imagery date 1 January 2008) showing the boundary of the Common (outlined in red). *All boundaries are indicative only. Do not scale* 

### 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>3</sup> (KMBRC)
- Kent Reptile and Amphibian Group <sup>4</sup> (KRAG)
- Kent Wildlife Trust (KWT)

KMBRC was asked to carry out a combined database search of Fawke Common and Bitchet Common<sup>5</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>6</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>7</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>8</sup>, for information relating to geology and the Soilscapes website<sup>9</sup> for information relating to soils.

#### 2.2 Site Visit

Fawke Common was visited on 19<sup>th</sup> and 25<sup>th</sup> April 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.

<sup>&</sup>lt;sup>3</sup> <u>www.kmbrc.org.uk</u>

<sup>&</sup>lt;sup>4</sup> http://www.kentarg.org/

<sup>&</sup>lt;sup>5</sup> The two Commons lie adjacent to each other and it was deemed appropriate to include both within a single data search <sup>6</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>&</sup>lt;sup>7</sup> <u>http://www.archnature.eu/mapping-tools.html</u>

<sup>&</sup>lt;sup>8</sup> http://mapapps.bgs.ac.uk/geologyofbritain/home.html

<sup>&</sup>lt;sup>9</sup> <u>http://www.landis.org.uk/soilscapes/</u>

#### 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>10</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>11</sup> (JNCC, 2004), and the Condition Assessment Monitoring Form for Woodlands<sup>12</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.

<sup>&</sup>lt;sup>10</sup> Using the Phase 1 Habitat Survey Toolkit <u>https://www.brookes.ac.uk/bms/services/ceec/phase-one-habitat-survey-toolkit/about/</u>

<sup>&</sup>lt;sup>11</sup> Document available to download from <u>http://jncc.defra.gov.uk/pdf/CSM\_woodland.pdf</u> <sup>12</sup> Form available to download from

http://www.essexwtrecords.org.uk/sites/default/files/surveyfiles/EWT%20woodland%20condition%20assessment%20form%20a mended%2014%2003%2012.pdf

#### 3 RESULTS

#### **Designated Nature Conservation Sites** 3.1

Fawke Common is included within Knole Park SSSI<sup>13</sup> (Appendix B).

The conservation interest of Knole Park is considerable. Over 320 species of fungi, including both dead wood and grassland species, occur on the site, together with a rich lichen flora, mostly concentrated on the old oak and sycamore pollards. Specialist invertebrate species associated with dead wood are well represented, and the site supports several nationally scarce dung beetles. Two uncommon species of bat, Leisler's and barbastelle, roost in the old hollow trees. The park provides good habitat for woodland birds requiring old trees for feeding or nesting, including woodpeckers, nuthatch and tree creeper, and Knole Park is believed to be where the last Kentish record for breeding woodlark was made.

The largest continuous area of unimproved acid grassland in Kent occurs at Knole Park (some 195ha), which represents some 50% of the total in the county The range of acid-loving plants that occur includes heath bedstraw Galium saxatile, tormentil Potentilla erecta, and the uncommon bird's-foot Ornithopus perpusillus, within a sward of common bent Agrostis capillaris, sheep's fescue Festuca ovina, sweet vernal-grass Anthoxanthum odoratum and heath-grass Danthonia decumbens. The grassland contains closely packed ant hills, built by the yellow meadow  $ant^{14}$ .

One Tree Hill and Bitchet Common SSSI lies approximately 420m to the east of Fawke Common. It was designated because it 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."<sup>15</sup>

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

#### 3.2 **Geology and Soils**

#### **Godden Green**

The British Geological Survey website<sup>16</sup> indicates that the bedrock geology underlying the northernmost section of Fawke Common 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.

#### **Fawke Common**

The British Geological Survey website<sup>17</sup> indicates that there are three types of bedrock geology underlying the southern block of Fawke Common. They include:

<sup>15</sup> The One Tree Hill and Bitchet Common SSSI citation may be viewed at

https://necmsi.esdm.co.uk/PDFsForWeb/Citation/1000317.pdf

<sup>&</sup>lt;sup>13</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>14</sup> English Nature. 24 April 2001. Site Management Statement: Knole Park SSSI (Fawke Common)

<sup>&</sup>lt;sup>16</sup> http://mapapps.bgs.ac.uk/geologyofbritain/home.html

<sup>&</sup>lt;sup>17</sup> http://mapapps.bgs.ac.uk/geologyofbritain/home.html

- 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.
- Folkestone Formation Sandstone. Sedimentary Bedrock formed approximately 100 to 125 million years ago in the Cretaceous Period. Local environment previously dominated by shallow seas.

Superficial deposits are limited to the southern end 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."

The Soilscapes website<sup>18</sup> has identified the soils on both blocks of Fawke Common as being 'Freely draining slightly acid loamy soils' <sup>19</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 Soilscapes 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 the site as comprising 'WB3 broadleaved woodland'<sup>20</sup> with fragments of 'B2.2 semi-improved neutral grassland'<sup>21</sup> at the northern end. A pond is shown at the extreme southwestern corner of the Common.

The Kent Habitat Survey has also identified that the broadleaved woodland areas of the site are included on Natural England's Priority Habitat Inventory as 'Lowland mixed deciduous woodland', and this is further confirmed by Natural England's SSSI Condition Assessment, which describes the woodland as 'Broadleaved, Mixed and Yew Woodland – Lowland'.<sup>22</sup> In contrast, the Magic website identifies the area of Fawke Common to the north of St Julian Road (i.e. much of Compartment 1, and Compartments 3 & 7) as Wood Pasture<sup>23</sup>.

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

<sup>&</sup>lt;sup>18</sup> <u>http://www.landis.org.uk/soilscapes/#</u>

<sup>&</sup>lt;sup>19</sup> Soilscape 6

<sup>&</sup>lt;sup>20</sup> WB3: 'Dry' woods predominantly composed of broadleaf and yew species (i.e. with >80% broadleaves and yew (Taxus baccata) in the canopy).
<sup>21</sup> Semi-improved peutral grasslands have been modified by artificial fartilizers. First, interaction, in the canopy.

<sup>&</sup>lt;sup>21</sup> Semi-improved neutral grasslands have been modified by artificial fertilisers, slurry, intensive grazing, herbicides or drainage, and consequently have a range of species which is less diverse and natural than unimproved grasslands. Characteristic grasses would include meadow foxtail, false oat-grass, crested dog's-tail, cock's-foot, tufted hairgrass, tall fescue and <sup>22</sup> https://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1006304

<sup>&</sup>lt;sup>23</sup> Shown on Magic website at

http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=bapwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmIBWI ndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=551970:153064:557050:155612&useDefaul tbackgroundMapping=false

A woodland management plan (Crichton Maitland & Co. September 1993), describes the historic development of the Knole Manorial Waste Woodlands (which includes Fawke 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."

The same plan, describes Fawke Common as follows, "*The tree species* [include] *sessile oak* Quercus petraea *and beech* Fagus sylvatica *as well as larger areas of silver birch* Betula pendula. *The woodlands are more secondary in nature and were greatly affected by the 1987 storm*<sup>24</sup>. *The shrub layer is dominated by dense bramble* Rubus fruticosus *agg.*. *The oak component is similar to Knole Park which supports a range of nationally rare and nationally scarce invertebrate species which depend on the parkland and woodland habitats, particularly on their deadwood components.*"

A Site Management Statement prepared by English Nature in 2001<sup>25</sup> adds further information about the woodland flora saying, "The woodland flora is acidic and particularly along rides and glades, supports wavy hair-grass *Deschampsia flexuosa*, heather *Calluna vulgaris*, heath bedstraw *Galium saxatile* and the characteristic moss *Leucobryum glaucum*."

Fawke Common was managed under a Woodland Grant Scheme operating from 1994 – 1999, with a second scheme operating from 1999 – 2004. Two small areas of Fawke Common within Compartment 1 (part of Rambles Wood and part of Redlands Wood) are currently included under an Entry Level plus Higher Level Stewardship Scheme.<sup>26</sup>

<sup>&</sup>lt;sup>24</sup> Fawke Common (south) lost about 33% of its tree cover in the 1987 Storm. Clearance was followed by partial restocking (20%) of the blown areas in 1989 and 1990. The balance of the areas has been restocked by natural regeneration or regrowth from cut stumps

<sup>&</sup>lt;sup>25</sup> English Nature. 24 April 2001. Site Management Statement: Knole Park SSSI (Fawke Common)

<sup>&</sup>lt;sup>26</sup> Map showing the extent of the Environmental Stewardship Scheme covering Fawke Common (South) is available to view at <a href="http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=esagIndex.backdropDIndex.backdropIndex.backdropIndex.wnlBWIndex">http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=esagIndex.backdropDIndex.backdropIndex.europeIndex.vmlBWIndex</a>, 25kBWIndex, 50kBWIndex, 50kBWIndex, miniscaleBWIndex, baseIndex&box=553224:152565:556566:154993&useDefaultback

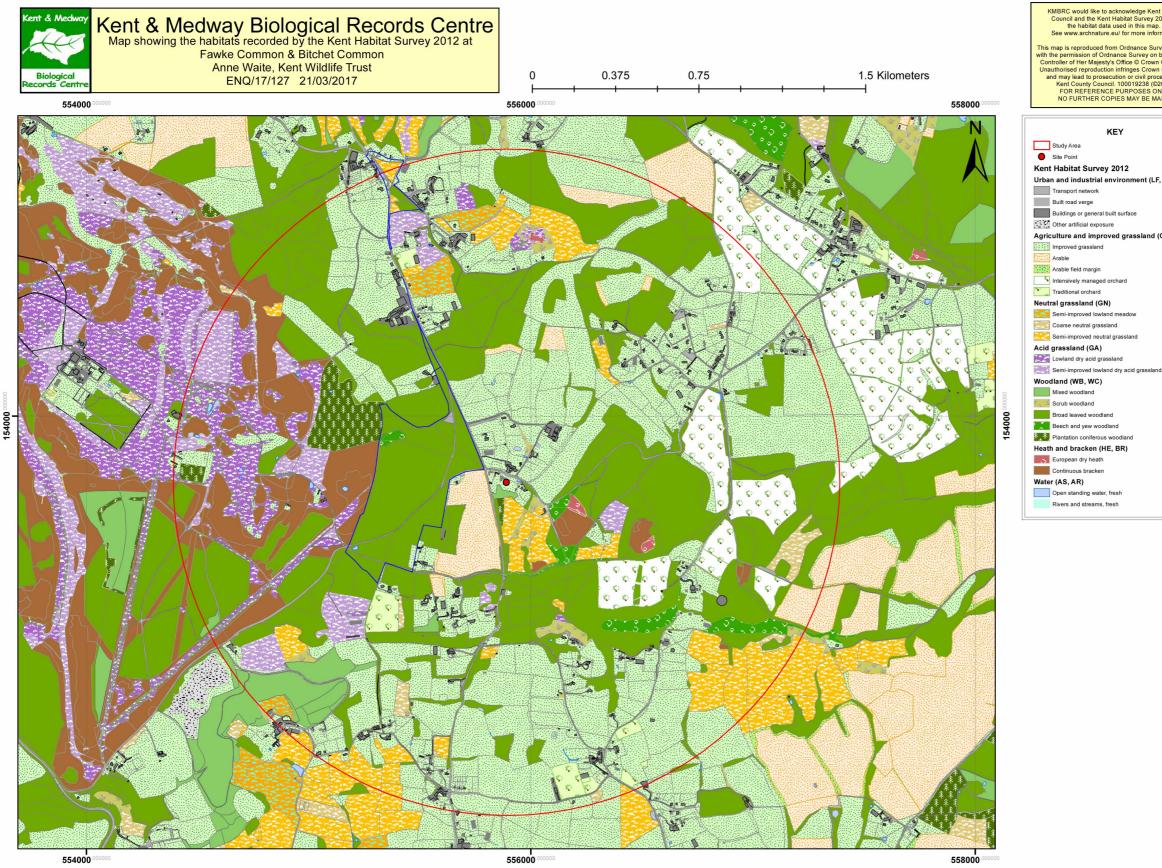


Figure 4: Fawke Common. Kent Habitat Survey, 2012. For ease of reference Fawke Common is shown outlined in blue

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/ for more information

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#### KEY

Urban and industrial environment (LF, UR, RE)

Agriculture and improved grassland (GI, CR, FT)

The 2017 Phase 1 Habitat Survey results were similar to previous descriptions of the site, confirming that Godden Green comprises broadleaved semi-natural woodland and semi-improved neutral grassland. A pond was also identified on the verge to the west of Park Lane. Fawke Common is dominated by broadleaved semi-natural woodland with a pond being located in the extreme southwestern corner of the site at TQ552534. A verge on the western side of Park Lane at the northern end of the Common comprises amenity grassland<sup>27</sup>.

The Phase 1 Habitat map is enclosed at Figure 5.

Compartments 1 - 7 and Target Notes 1 - 15, 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: Fawke Common	and Godden Green	Target Notes
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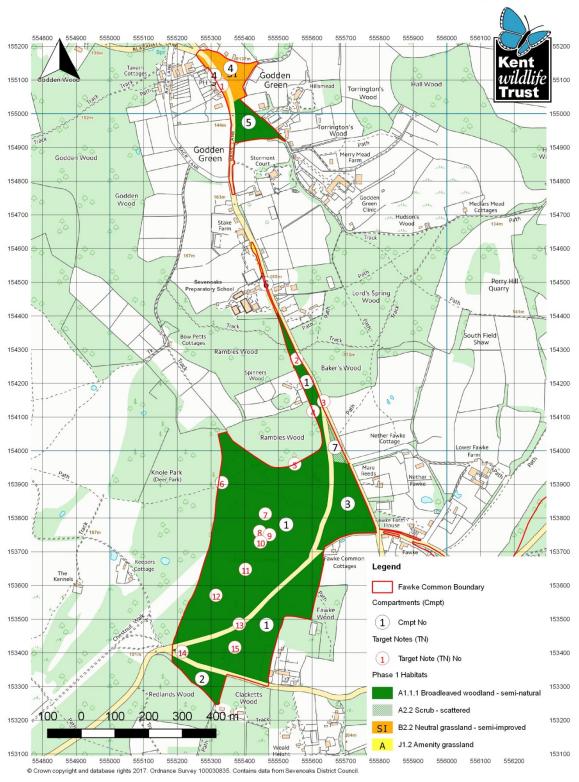
Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>28</sup> )) during 2017 walkover
Cmpt 1	Broadleaved semi- natural woodland (20.83ha)	The largest compartment on the Common. It borders an extensive area of wood pasture to the west. The compartment includes standard trees, some veteran or near veteran status beeches and an oak together with a holly understorey suggesting a former history of wood pasture / wooded heath. There is some colonisation by birch; beech <i>Fagus sylvatica</i> and oak <i>Quercus</i> sp. have been planted (Photo's 1 & 2).	Broad buckler-fern <i>Dryopteris</i> <i>dilatata</i> (O); bluebell <i>Hyacinthoides non-scripta</i> (O); bramble <i>Rubus fruticosus</i> agg. (O).
		A ride runs east-west through this compartment – essentially acting as an open wooded glade with mature and veteran trees in a matrix of colonising secondary woodland (Photo 3).	
Cmpt 2	Broadleaved semi- natural woodland (0.82ha)	Small block of mixed broadleaved semi-natural woodland located to the south of an un-named road and forming part of the wider Redlands Wood. Beech was original dominant standard. Birch <i>Betula pendula</i> and sycamore <i>Acer pseudoplatanus</i> are now establishing, with a holly <i>llex</i> <i>aquifolium</i> understorey (Photo 16).	Bramble (F); bluebell (O); dog's- mercury <i>Mercurialis perennis</i> (O); bracken <i>Pteridium</i> <i>aquilinum</i> (O).
Cmpt 3	Broadleaved semi- natural woodland (2.20ha)	Mixed native broadleaved woodland with few standards. Woodland is dominated by sycamore with an established holly understorey in places (Photo 17).	Broad buckler-fern (O); bluebell (O); bramble (O).
Cmpt 4	Neutral grassland - semi-improved (1.08ha)	Godden Green. Grassland includes scattered horse chestnut <i>Aesculus</i> <i>hippocastanum</i> , and improved grass verge adjacent to residential properties and public house (Photo's 18 and 19). Pond (see TN1 (Photo 20)).	Dandelion <i>Taraxacum officinale</i> agg (F); creeping buttercup <i>Ranunculus repens</i> (O).

<sup>&</sup>lt;sup>27</sup> Amenity grassland comprises intensively managed and regularly mown grasslands

<sup>&</sup>lt;sup>28</sup> DAFOR = Dominant; Abundant; Frequent; Occasional; Rare

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>28</sup> )) during 2017 walkover
Cmpt 5	Broadleaved semi- natural woodland (0.98 ha)	Small wooded compartment at the northern end of the site abutting semi- improved neutral grassland. Woodland includes a number of standard trees with both hazel and holly present in the understorey. Both sycamore and Norway maple are present and establishing with numerous seedlings (Photo 21).	Bramble (D); honeysuckle Lonicera periclymenum (F); dog's mercury (F);bluebell (O); cow parsley Anthriscus sylvestris (O); cuckooflower Cardamine pratensis (O); forget- me-not species Myosotis sp (O); hedge mustard Sisymbrium officinale; daffodil species (planted).
Cmpt 6	Amenity grassland (0.14ha)	Road verge to west of Park Lane. Managed by mowing.	
Cmpt 7	Scattered scrub (0.32ha)	Area with a very open woodland canopy resembling a woodland glade, with some shrubs and understorey over a ground flora dominated by bracken and bramble (Photo 22).	Bramble (A); bracken (F); cock's-foot <i>Dactylis glomerata</i> (F); field maple <i>Acer campestre</i> (O); ash <i>Fraxinus excelsior</i> (O); rowan <i>Sorbus aucupari</i> a (O); willow <i>Salix</i> sp. (O).
TN1	-	Compartment 4. TQ553 550. Pond west of Park Lane. Fenced. Good diversity of aquatic, emergent and marginal vegetation. Linked to surrounding area via grassland verge (Photo 20).	
TN2	-	Compartment 1. TQ555 542. Woodland grades to high forest, dominated by beech standards with oak and a holly understorey (Photo 2).	
TN3	-	Junction Compartment's 1 & 7. TQ556 541. Both compartments have a more open canopy structure at this point.	
TN4	-	Compartment 1. TQ556 541. Oak with dangerous beech hang-up (Photo 4).	
TN5	-	Compartment 1. TQ555 539. Beech infected with <i>Ganoderma</i> and with evidence of lightning strike. This tree is located immediately adjacent to foot path and is leaning (Photo 5).	
TN6	-	Compartment 1. TQ553 539. Oak with windthrow beech in close proximity to PROW. Horse hoof fungi <i>Fomes</i> <i>fomentarius</i> to beech. Second beech lean to oak (Photo 6).	
TN7	-	Compartment 1. TQ554 538. Main ride (Photo 3)	
TN8	-	Compartment 1. TQ554 537. Veteran beech coppice (Photo's 7 & 8).	
TN9	-	Compartment 1. TQ554537. Veteran coppice beech (Photo 9).	
TN10	-	Compartment 1. TQ554 537. Very mature beech (Photo 10).	
TN11	-	Compartment 1. TQ554 536. Mature yew <i>Taxus baccata</i> (Photo 11).	
TN12	-	Compartment 1. TQ553 535. Veteran oak pollard (Photo 12).	
TN13	-	Compartment 1. TQ553 534. Standard oak (Photo 13).	

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR <sup>28</sup> )) during 2017 walkover
TN14	-	Compartment 1. TQ552 534. Woodland pond (Photo 14). The pond was not holding water at the time of the survey visit. Vegetation was dominated by bogbean and yellow iris.	Bogbean <i>Menyanthes trifoliata</i> (F); yellow iris <i>Iris pseudacorus</i> .
TN15	-	Compartment 1. TQ553 534. Veteran sweet chestnut coppice 20m west of bridleway (Photo 15).	



#### Sevenoaks Greensand Charts and Commons - Fawke Common: Phase 1 Habitat Survey Map

Figure 5: Fawke Common and Godden Green. Phase 1 Habitat Map, based on site walkover survey April 2017

### 3.4 Preliminary Woodland Condition Survey

A preliminary woodland condition survey was undertaken for the main wooded compartments 1, 2, 3 and 5 (Figure 2). The results are presented in Tables 2 - 5 below. The Species / Structure / Age Class data has also been presented in a series of bar charts, attached at Appendix D.

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

Feature	Description		
Woodland Type:	Broadleaved Semi-natural Woodland.		
Habitat Type:			
e.g. Coppice woodland; Ride; Glade; Wood Pasture:			
Species / Structure / Age Class:	Beech V 1%		
Key to abbreviations	Beech Very MAT 1m+ dbh 1%		
Seedling (SE)	Beech STA 90cms dbh 5%		
Sapling (SA)	Beech STA 60cms dbh 1%		
Semi-established (SET)	Beech STA 40cms dbh 40%		
Established (EST)	Beech (Planted) 10cms dbh 15%		
Mature (MAT) Standard (STA)	Beech SA 40%		
Shrub layer/Understorey (SL/US)	Oak V 120cms dbh 1%		
Over mature	Oak STA 60cms dbh 1%		
Veteran (V)	Oak STA 40cms dbh 25%		
Coppice <5 years	Oak (Planted) 10cms dbh 15%		
Scrub height	Holly US 50%		
Mature (for species)	Birch STA 25cms dbh 20%		
Percentages where given are rough	Birch EST 15cms dbh 20%		
percentages of that feature	Birch SET 20%		
	Birch SA 20%		
	Sweet chestnut STA 90cms dbh 1%		
	Sweet chestnut Coppice 20/70cms 1%		
	Rowan SA 5%		
	Whitebeam SET 12cms dbh 1%		
	Yew STA 50cms dbh 1%		
	Yew SET 1%		
	Sycamore Coppice 1%		
	Sweet chestnut STA 60cms dbh 1%		
	Pine STA 60cms dbh 1%		
Ground Flora:	See Table 1 Ch 3.3.		
Fungi:	None observed.		
Decaying Wood:	Decaying wood: 15%		
Standing:	Fallen wood: 100%		
Fallen:			
Invasive Species:	None observed.		
Deer Damage:	None observed.		
Historic Features:			
General Comments:	This compartment borders an extensive area of wood pasture. There are standard trees, some veteran or near veteran status beeches and an oak, together with a holly understorey suggesting a former history of wood pasture / wooded heath. There is some colonisation by birch, and also a number of planted beech and oak trees.		

#### Table 3: Fawke Common Compartment 2. Preliminary Woodland Condition Survey

Feature	Description		
Woodland Type:	Broadleaved Semi-natural Woodland.		
Habitat Type:			
e.g. Coppice woodland; Ride; Glade; Wood Pasture:			
Species / Structure / Age Class:	Birch STA 25cms dbh 1%		
Key to abbreviations	Birch SA 20%		
Seedling (SE)	Sycamore EST 5%		
Sapling (SA)	Sycamore SE 20%		
Semi-established (SET)	Beech STA 90cms dbh 1%		
Established (EST)	Beech STA 40cms dbh 10%		
Mature (MAT)	Beech Coppice 5%		
Standard (STA)	Holly US 10%		
Shrub layer/Understorey (SL/US) Over mature	Sweet chestnut STA 90cms dbh 5%		
Veteran (V)	Sweet chestnut STA 50cms dbh 1%		
Coppice <5 years	Sweet chestnut Coppice 20/70cms dbh 5%		
Scrub height	Oak STA 60cms dbh 1%		
Mature (for species)	Oak STA 50cms dbh 5%		
Percentages where given are rough	Hazel US 3%		
percentages of that feature	Hornbeam STA 20cms dbh 1%		
	Yew SE 1%		
	Hawthorn US 1%		
Ground Flora:	See Table 1 Ch 3.3.		
Fungi:	None observed.		
Decaying Wood:	None observed		
Standing:			
Fallen:			
Invasive Species:	None observed.		
Deer Damage:	None observed.		
Historic Features:			
General Comments:	A mixed broadleaved woodland area with beech as the original dominant standard and a holly understorey. Birch and sycamore are now establishing.		

#### Table 4: Fawke Common Compartment 3. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural Woodland.
Habitat Type:	
e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class:	Holly US 30%
Key to abbreviations	Oak STA 50cms dbh 5%
Seedling (SE)	Sycamore EST 40%
Sapling (SA)	Hazel US 5%
Semi-established (SET)	Beech STA 90cms dbh 1%
Established (EST)	Sycamore SET 20%
Mature (MAT)	Ash STA 30cms dbh 1%
Standard (STA)	
Shrub layer/Understorey (SL/US)	Birch STA 20cms dbh 1%

Over mature	
Veteran (V)	
Coppice <5 years	
Scrub height	
Mature (for species)	
Percentages where given are rough percentages of that feature	
Ground Flora:	See Table 1 Ch 3.3.
Fungi:	None observed
Decaying Wood:	Decaying Wood 5%
Standing:	Fallen 100%
Fallen:	
Invasive Species:	
Deer Damage:	None observed.
Historic Features:	
General Comments:	Mixed native broadleaved woodland of sparse standards and established holly understorey. Sycamore is establishing rapidly.

#### Table 5: Godden Green Compartment 5. Preliminary Woodland Condition Survey

Feature	Description		
Woodland Type:	Broadleaved semi-natural woodland.		
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture: Species / Structure / Age Class:	Oak STA 50cms dbh 2%		
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 20cms dbh 1% Hazel US 2% Hawthorn US 2% Ash STA 30cms dbh 1% Sycamore SA 15% Wild cherry STA 50cms dbh 1% Wild cherry STA 30cms dbh 5% Wild cherry STA 20cms dbh 1% Wild cherry SA 20cms dbh 1% Wild cherry SA 5% Yew SA 1% Norway maple STA 1% Ash SA 1%		
Ground Flora:	See Table 1 Ch 3.3.		
Fungi:	None observed.		
Decaying Wood: Standing: Fallen:	Decaying Wood >55% Fallen Wood 100%		
Invasive Species:	Cherry laurel.		
Deer Damage:	None observed.		
Historic Features:			
General Comments:	A triangle of mixed broadleaved woodland. There are a number of standard trees with both hazel and holly as understorey species. Both sycamore and Norway maple are present and establishing with numerous seedlings.		

#### 3.5 Veteran Tree Survey

A number of veteran trees were observed within the main woodland block of Compartment 1. Further details are given in Table 6 below:

Species	Туре	Location	Approx DBH	Photo	Comments
Beech	Coppice	Compartment 1 TQ554537	-	Photo's 7 & 8 (Appendix A)	Crown in very good condition. Tree is infected with <i>Ganoderma</i> and should be monitored. No bat roost potential. Footpath within crown spread – the ongoing condition of this tree should be monitored regularly (TN8).
Beech	Coppice	Compartment 1 TQ554537	-	Photo 9 (Appendix A)	Damage to 60cms stem. Damage to crown. No bat roost potential. Surrounded by birch and holly and one planted sapling oak. Sapling rowan also present. Recommendation to consider haloing (TN9).
Oak pollard	Coppiced, multi- stem at > 1m	Compartment 1 TQ553535	-	Photo 12 (Appendix A)	Veteran oak pollard. 20% decaying wood. No bat roost potential. In leaf at time of visit – detailed assessment not possible, but considered likely to be in good condition (TN12).
Sweet chestnut	Coppice	Compartment 1 TQ553534	Multi-stems 50 – 60cms dbh	Photo 15 (Appendix A)	Some decaying wood to crown. Considered to be in good condition (TN15).

Table 6: Fawke Common. Preliminary Veteran Tree Check

#### **Species** 3.6

Table 7 below provides a summary of the species information obtained as part of the desktop study.

Table 7: Fawke Common and Godden Green. Protected / notable species which either occur within, or have the potential to occur within or close to the sites.

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
Vascular Plants	The English Nature Site Management Statement for Fawke Common (2001) says that the Common supports an acidic woodland flora and, particularly along rides and glades, supports wavy hair- grass <i>Deschampsia</i> <i>flexuosa</i> , heather <i>Calluna</i> <i>vulgaris</i> , heath bedstraw <i>Galium saxatile</i> , and the characteristic moss <i>Leucobryum glaucum</i> . One protected species – bluebell <i>Hyacinthoides non-</i> <i>scripta</i> – and one Kent Red Data Book species – bogbean <i>Menyanthes</i> <i>trifoliata</i> – were recorded during the survey visit. Data search indicates presence of two S41 species on the Common – juniper <i>Juniperus communis</i> and small-flowered sticky eyebright <i>Euphrasia</i> <i>officinalis</i> subsp. <i>anglica</i> .	Bluebell Small-flowered sticky eyebright <sup>EN, S41, CS</sup> Juniper <sup>S41</sup>	Bluebell: listed on Schedule 8 of the Wildlife & Countryside Act (as amended). Protection is limited to 'sale' only. <sup>29</sup> EN' relates to those species which are considered to be facing a very high risk of extinction in the wild. 'CS' = County Scarce i.e. occurring in 12 – 52 tetrads in Kent. 'K' = included in the Kent Red Data Book. Those species marked with 'S'41' are Species of Principal Importance (formerly UKBAP Priority Species).
Lower Plants	Fawke Common is considered to support a lichen flora of county importance which, according to Francis Rose, may be richer on Fawke Common than on the adjacent Knole Park (Crichton Maitland & Co. 1993). Joyce Pitt is also of the opinion that the site is of significant value for its fungi (J Pitt pers. comm).	Tinder bracket Fomes fomentarius <sup>K</sup>	'Κ' = included in the Kent Red Data Book.
Birds	KMBRC database search has few records of breeding birds attributable to Fawke Common including great spotted woodpecker, wren, goldcrest, blue tit and	Woodcock <sup>+</sup> Skylark <sup>+, k, S41</sup> Dunnock <sup>S41</sup> Song thrush <sup>+, k, S41</sup>	All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended). <sup>30</sup>

<sup>&</sup>lt;sup>29</sup> <u>http://naturenet.net/law/sched8.html</u> <sup>30</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <u>http://jncc.defra.gov.uk/page-1377</u>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	nuthatch. Other breeding bird records attributed to Godden Green to Seal Country Park (TQ5554) and which may include Godden Green include mallard, kestrel, moorhen, woodcock, stock dove, collared dove, green woodpecker, skylark, swallow, house martin, pied wagtail, dunnock, robin, blackbird, mistle thrush, garden warbler, blackcap, willow warbler, long-tailed tit, coal tit, Treecreeper, jay, jackdaw, rook, carrion crow, starling, house sparrow, chaffinch, greenfinch, goldfinch.	Starling <sup>+, k, S41</sup> House sparrow <sup>+, k, S41</sup> Linnet <sup>+, k, S41</sup>	Those species marked with '*' are Red List <sup>31</sup> species; Those species marked with 'k' are Kent Red Data Book species; Those species marked with 'S'41' are Species of Principal Importance (formerly UKBAP Priority Species).
Bats	Eleven species of bat, of the 15 species recorded in Kent, have been recorded in this area. The nearest identified roost (unknown type) is located immediately to the east of Park Lane adjacent to the northern end of Godden Green.	Serotine, Alcathoe, 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>32</sup> and are therefore "European Protected Species". Those species marked with '*' are considered to be Species of Principal Importance in England
Badgers	One record attributed to Fawke Common, although no evidence was observed during the site walkover. The Common contains suitable foraging habitat and has good links to the wider countryside. They are considered likely to be present.		(formerly UKBAP) <sup>33</sup> Badgers and their setts are protected by the Protection of Badgers Act 1992 <sup>34</sup>
Hazel Dormouse	No dormouse recorded on the Common. Nearest records Rook Hill, Underriver, 1km to east. The Common is bisected by a number of roads.		Afforded full legal protection under Schedule 5 of the WCA 1981 (as amended). Also listed under Schedule 2 of the Conservation of Habitats.

<sup>&</sup>lt;sup>31</sup> Definition included at <a href="http://www.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdguide/status\_explained.aspx">http://www.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdguide/status\_explained.aspx</a> <sup>32</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <a href="http://jncc.defra.gov.uk/page-iteration">http://jncc.defra.gov.uk/page-iteration</a>

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http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/ protectandmanage/habsandspeciesimportance.aspx <sup>34</sup> A summary of the Protection of Badgers Act is available at

http://adlib.everysite.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
	Nevertheless it retains good links to extensive areas of woodland / wood pasture where dormice have been recorded and their presence should not be discounted.		and Species Regulations 2010 <sup>35</sup> and therefore a "European Protected Species". A Species of Principal Importance in England (formerly UKBAP) and is included on Schedule 5 of the WCA 1981 (as amended) <sup>36</sup> .
Reptiles	The data search has records of three reptile species occurring on the Common – viviparous lizard (2001), and adder (recorded 2005), slow- worm (recorded 1982) / 1997), and grass snake (1982). There is also a nearby record of adder from Knole Park (2014). Whilst the habitat at Fawke Common is not optimal for this species, there is the possibility that it may occur around the woodland edges to the west of the site bordering the adjacent wood pasture.	Viviparous lizard Slow-worm Adder	All reptile species likely to be encountered at Sevenoaks Common are protected against killing & injury under Schedule 5 of the WCA 1981 (as amended).
Amphibians	The data search reveals records of four amphibian species from Fawke Common itself – great crested newt (most recently in 1990), smooth newt (2012) <sup>37</sup> common toad (1998) and common frog (1990). There are two ponds within the Common – although only one pond (TN1) was holding water at the time of the site visit.	Great crested newt Common toad	Great crested newts are afforded full legal protection under Schedule 5 of the WCA 1981 (as amended) <sup>38</sup> . Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 <sup>39</sup> and therefore a "European Protected Species". Great crested newts and common toads are Species of Principal Importance in England (formerly UKBAP).
Invertebrates	Fawke Common is included within Knole Park SSSI, a site regarded as the finest deadwood and ancient woodland invertebrate fauna in Kent (Appendix B). Whilst not directly attributed to Fawke Common, the woodland management plan (Crichton Maitland & Co.,	Platypus cylindrus N Cerylon fagi N Bolitochara mulsanti N Ash-grey slug Limax cinereoniger <sup>k</sup> (Godden Green) Taphrorychus bicolor <sup>N</sup> Dexiogyia corticina <sup>N</sup>	Those species marked with 'N' are considered to be nationally notable i.e. they are estimated to occur within the range of 16 – 100 10km squares. Those species marked with 'S'41' are Species of Principal Importance (formerly UKBAP Priority

<sup>&</sup>lt;sup>35</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <u>http://jncc.defra.gov.uk/page-</u>

- <sup>39</sup> Further details about the Conservation of Habitats and Species Regulations 2010 is available at <u>http://jncc.defra.gov.uk/page-</u> <u>1379</u>

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Sevenoaks Greensand Commons Project: Fawke Common. Ecological Scoping & Outline Nature Conservation Management Plan

 <sup>&</sup>lt;sup>1379</sup>/<sub>36</sub> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <a href="http://jncc.defra.gov.uk/page-1377">http://jncc.defra.gov.uk/page-1377</a>
 <sup>37</sup> Identified during a KWT survey of Fawke Common undertaken on behalf of Sevenoaks District Council in 2012
 <sup>38</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <a href="http://jncc.defra.gov.uk/page-1377">http://jncc.defra.gov.uk/page-1377</a>
 <sup>38</sup> Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <a href="http://jncc.defra.gov.uk/page-1377">http://jncc.defra.gov.uk/page-1377</a>

		/ notable species on or near site	
	1993) describes the	Bolitochara mulsanti <sup>N</sup>	Species)
	Common as having an oak component similar to Knole Park, which supports a range of nationally rare and nationally scarce invertebrate species which depend on the parkland and woodland habitats, particularly on their deadwood components. A nationally rare beetle <i>Platypus clyindrus</i> is found in the ancient broadleaved forest and parkland, boring	Quedius brevicornis <sup>N</sup>	Those species marked with 'k' are Kent Red Data Book species.
		Quedius microps <sup>N</sup>	
		Plegaderus dissectus <sup>N</sup>	
		Hylis olexai <sup>K</sup>	
		Maple Wood-boring beetle Gastrallus immarginatus <sup>K</sup> (Godden Green)	
		Sphindus dubius <sup>N</sup>	
		Meligethes haemorrhoidalis <sup>N</sup>	
		Enicmus rugosus <sup>N</sup>	
	into the thick oak bark. A number of nationally scarce	Tetratoma desmatesti <sup>N</sup>	
	invertebrates occupy various	Phloiotrya vaudoueri <sup>N</sup>	
	ecological niches in the woodlands and parkland of this site. <i>Cerylon fagi</i> lives	Eledona Agricola <sup>N</sup>	
		Prionychus ater <sup>N</sup>	
	under bark and in deadwood	Ischnomera caerulea <sup>ĸ</sup>	
	habitats. <i>Bolitochara</i> <i>mulsanti</i> is a tiny beetle found under fungus-infected bark and in decaying fungus. <i>Dienerella elongata</i> is a tiny beetle found in leaf litter, moss and fungi on this site. KMBRC also has a reasonable list of invertebrates attributed to Fawke Common and Godden Green. The more notable species are included in this table.	Black-headed cardinal beetle <i>Pyrochroa coccinea</i>	
		Tanner Beetle <i>Prionus</i> coriarius <sup>N</sup>	
		Stictoleptura scutellata <sup>N</sup>	
		Small Heath S41	
		Sulphur Pearl <i>Sitochroa</i> palealis <sup>N</sup>	
		Ghost moth <i>Hepialus</i> <i>humuli</i> <sup>S41</sup>	
		Small phoenix <i>Ecliptopera</i> <i>silaceata</i> <sup>S41</sup>	
		Brindled beauty <i>Lycia</i> <i>hirtaria</i> <sup>S41</sup>	
		Buff Ermine <i>Spilosoma</i> <i>lutea</i> <sup>S41</sup>	
		Cinnabar <i>Tyria jacobaeae</i> <sup>S41</sup>	
		Knot grass Acronicta rumicis S41	
		Green-brindled crescent Allophyes oxyacanthae S41	
		Mottled rustic Caradrina morpheus <sup>S41</sup>	
		Rustic Hoplodrina blanda <sup>S41</sup>	
		Sallow Cirrhia icteritia S41	
		Powdered quaker <i>Orthosia</i> gracilis <sup>S41</sup>	
		Dot moth <i>Melanchra</i> persicariae <sup>S41</sup> Dolichovespula media <sup>N</sup>	

The KMBRC datasearch highlighted the presence of a number of non-native vascular plant species on the Common which are included on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended). It is illegal to 'plant or otherwise cause to grow in the wild' species included on Schedule 9. Records of Schedule 9 species recorded on Fawke Common include:

- Nuttall's waterweed *Elodea nuttallii*
- New Zealand Pigmyweed Crassula helmsii
- Yellow archangel Lamiastrum galeobdolon subsp. argentatum
- Rhododendron Rhododendron ponticum
- Japanese knotweed Fallopia japonica

There are also records of additional invasive species (not listed on Schedule 9) including red valerian *Centranthus ruber* and winter heliotrope *Petasites fragrans*.

The site walkover confirmed the presence of cherry laurel within Compartment 5 (Godden Green). No other non-native species were recorded.

The data search also indicated that fallow deer has been recorded on the Common, most recently in 2002; no evidence of deer damage was observed during the site visit.

The data search indicated that the horse chestnut leaf miner *Cameraria ohridella* has been recorded, most recently in 2005.

#### 3.7 Identification of Access Issues

Fawke Common is designated as Registered Common Land and has been mapped as Access Land under the Countryside and Rights of Way Act 2000 (Figure 7).

Two Public Rights of Way (PROW) and a Restricted Byway cross Fawke Common, whilst a PROW skirts the northern boundary of Godden Green (Figure 8). Walkers, with and without dogs, were observed during the walkover survey.

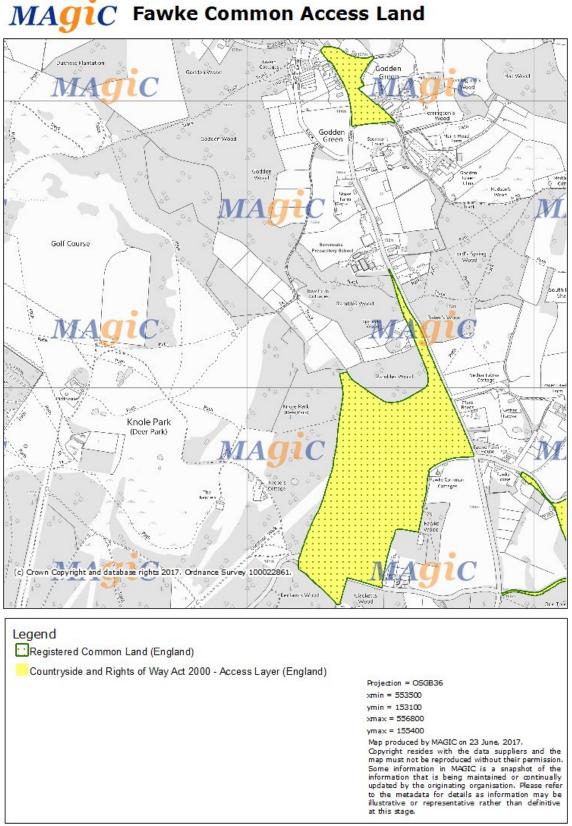


Figure 7: Fawke Common. Access Land

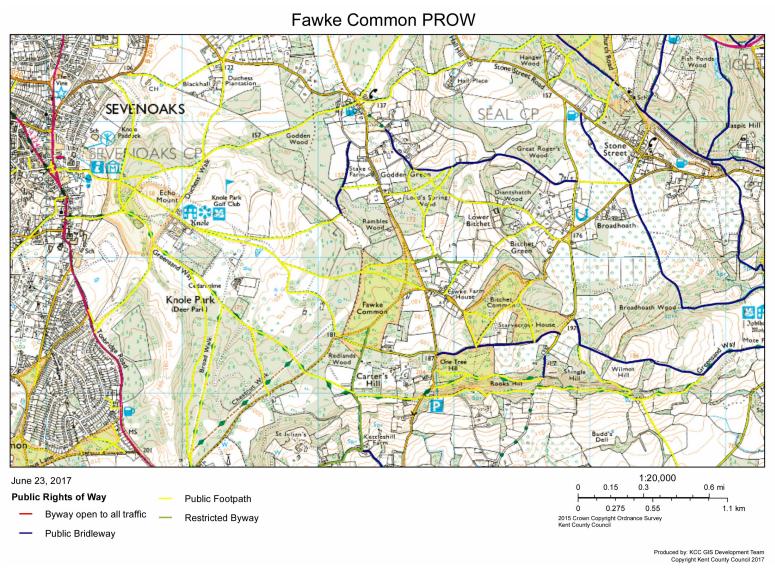


Figure 8: Fawke Common. Public Rights of Way Map

### 4 ENHANCEMENT OPPORTUNITIES

#### 4.1 Site Evaluation

Fawke Common was found to be dominated by broadleaved woodland, with discrete areas of grassland concentrated along the western verge of Park Lane and a more substantial block of semi-improved neutral grassland forming part of the green at Godden Green. There are also two ponds – one on Godden Green and the second on Fawke Common.

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 much of Compartment 1 to the north of St Julian Road as wood pasture, again categorised as a Priority Habitat, but also included within the 'Lowland Woodpasture and Parkland' Kent Habitat Action Plan (Plan 16, 2005a).

The overall impression gained from the site walkover is that the wooded areas, particularly in Compartment 1, support a number of veteran, very mature and mature trees which point towards a former history of wood pasture / wooded heath as indicated on the Magic website. Wood pasture is generally is 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 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).

It is a possibility that a cessation of grazing and traditional management has encouraged the natural regeneration of beech and colonisation by pioneer species such as birch, as well as the development of an understorey dominated by holly as shown in the Woodland Condition Analysis (Ch 3.4 and Appendix D), resulting in succession to the secondary broadleaved woodland seen today. In general it is considered that the vegetation structure at Fawke Common is now more akin to deciduous woodland than wood pasture more closely resembling the broadleaved mixed and yew woodland classification given to the site by Natural England <sup>40</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 across parts of the Common could be considered. In the latter scenario, management may include 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 for encouraging the

<sup>&</sup>lt;sup>40</sup> http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1006304

development of flowering plants and shrubs, which provide the nectar and pollen required by the specialist invertebrates whose larvae develop in decaying wood. Without grazing pressure, creation / maintenance of a wood pasture structure is considered unlikely to be achievable here.

It should however be noted that several areas of Fawke Common are currently included within Environmental Stewardship and, given its status as an SSSI, any discussions relating to a change in management must involve Natural England. Any management decisions should also note that the most recent SSSI Condition Assessment carried out in 2012 concluded that Fawke Common was in Favourable Condition<sup>41</sup>.

As already mentioned, Fawke Common has a number of veteran / very mature / mature trees. While some were deemed to have no bat roost potential, it was not possible to examine all trees in detail and it is likely that some will have potential. Accordingly, any management to these trees should consider the potential for bat roosts to be present.

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>42</sup>. Ongoing monitoring will therefore be required.

The grassland block at Godden Green has been identified as semi-improved neutral grassland, with the grassland along the verges of Godden Green and south considered to be amenity 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 such as dandelion and creeping buttercup, with the semi-improved neutral grassland also including scattered horse chestnut trees. 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.

There are two ponds on Fawke Common. The northernmost pond at Godden Green is characteristic of its position in the landscape, resembling a traditional village pond, with a good diversity of native and non-native plantings. The second pond is located on Fawke Common, in Compartment 1. It is a woodland pond, which was dry at the time of the survey visit, although the presence of characteristic wetland species such as bogbean and yellow iris, indicate that it may still hold water at certain times of year. This pond was last surveyed by Kent Wildlife Trust in 2012 in connection with plans to de-silt the pond during the winter of 2012 / 2013; given the current condition of the pond it is presumed that these plans were never carried out. In 2012 the pond was holding water and supporting breeding smooth newts and common frogs. It is recommended that consideration is given to enhancing the value of this pond for breeding amphibians.

The data search indicated that five non-native species listed on Schedule 9 have been recorded on the Common (Ch3.6). None were recorded during the site visit, and it is known

<sup>&</sup>lt;sup>41</sup> For details of the SSSI Condition Assessment see

http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1006304 <sup>42</sup> http://chalaramap.fera.defra.gov.uk/

that there have been efforts to control the spread of rhododendron and New Zealand Pigmyweed (English Nature, 2001). It is recommended that the Common should be monitored and steps taken to eradicate or control the spread of any Schedule 9 species identified.

Cherry laurel was recorded in Compartment 5 (Godden Green) 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.

One 'pest' invertebrate species - the horse chestnut leaf miner *Cameraria ohridella* was recorded in 2005. Whilst there is no requirement to report sightings of this pest to Forestry Commission, they are interested in monitoring its spread, with results helping to contribute to research into the horse chestnut leaf miner, and this could perhaps form the basis of a local Citizen Science Project here.

Although Fawke Common is relatively small and bisected by roads it does not sit in isolation, instead forming an integral part of the Knole Park Deer Park extending to the north and west of the Common, and lies in close proximity to areas of woodland and Bitchet Common to the east. It 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 and the results of the data search suggest that Fawke Common is likely to be of significant interest for a number of species groups, notably lower plants (lichens and fungi) and invertebrates. The site is also likely to be of potential interest for a number of other groups including: bats, where eleven species have been recorded in the search area; and reptiles, where three species have been recorded on the Common, with adder known to occur on adjacent land at Knole Park. Targeted survey work at appropriate times would help to establish the importance of Fawke Common in its own right.

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 2008, 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 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 to the west of the Common adjacent to Knole Park, with the aim of providing connecting habitat and encouraging spread of more heathy vegetation.
- 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 i.e. whether to manage as broadleaved woodland or whether to consider restoration of certain compartments within the Common to wood pasture.

- <u>Cherry Laurel Eradication / Control</u>. The following recommendations are taken from the Kent Wildlife Trust Woodland Management Advice Sheet relating to the control of rhododendron and cherry laurel<sup>43</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.
  - 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.
- <u>Ash die-back disease</u>. 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>44</sup>.
- <u>Species listed on Schedule 9.</u> 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>45</sup>.

#### 4.2.1.2 Management of Pond – Fawke Common

• The pond is included within the SSSI and all proposals for de-silting must be subject to approval by Natural England

<sup>44</sup> <u>http://www.forestry.gov.uk/forestry/infd-92pjkx</u>

<sup>&</sup>lt;sup>43</sup> <u>http://www.kentwildlifetrust.org.uk/sites/default/files/kwt\_land\_mgt\_advice\_sheet\_9 - woodland\_management\_-</u> <u>control\_of\_rhododendron.pdf</u>

<sup>&</sup>lt;sup>45</sup> Such as that provided by websites including the GB non-native species secretariat <u>http://www.nonnativespecies.org/home/index.cfm</u>

- Establish whether the pond holds water at any time of year. If so, then an initial survey should be undertaken to establish presence / absence of great crested newts. The results of the survey work will be used to determine whether or not the work will require a method statement / conservation licence.
- This pond has previously managed to treat the invasive New Zealand Pigmyweed. The pond should be checked for this species and, if present, Natural England / Environment Agency should be consulted for advice on control and disposal of any silt that may contain plant fragments.
- De-silting work could should be undertaken during autumn / winter

#### 4.2.1.3 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 Fawke 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.
- 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, particularly concentrating on dead wood species, to establish the importance of Fawke 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. Consider involving local residents in ongoing monitoring for horse chestnut leaf miner and submit results to Forestry Commission<sup>46</sup>.
- Lower Plant Survey. Undertake a targeted lichen / fungi survey to establish current status of these groups within Fawke Common. The results of the survey work should be used to inform management aimed at enhancing the Common for these groups.

<sup>&</sup>lt;sup>46</sup> <u>https://www.forestry.gov.uk/horsechestnutleafminer</u>

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

1. Compartment 1: General view of Compartment



2. Compartment 1 (TN2): General view of Compartment



3. Compartment 1 (TN7): Photograph showing main ride



4. Compartment 1 (TN4): Photograph showing oak with dangerous beech hang-up



5. Compartment 1 (TN5): Photograph showing beech infected with *Ganoderma* and with evidence lightning strike



6. Compartment 1 (TN6): Photograph showing oak with windthrow beech in close proximity to PROW



7. Compartment 1 (TN8): Photograph showing veteran beech coppice



8. Compartment 1 (TN8): Photograph showing veteran beech coppice



9. Compartment 1 (TN9): Photograph showing veteran beech coppice



10. Compartment 1 (TN10): Photograph showing very mature beech



11. Compartment 1 (TN11): Photograph showing mature yew



12. Compartment 1 (TN12): Photograph showing veteran oak pollard



13. Compartment 1 (TN13): Photograph showing standard oak



14. Compartment 1 (TN14): Photograph showing woodland pond



15. Compartment 1 (TN15): Photograph showing veteran sweet chestnut coppice



16. Compartment 2: Photograph showing general view of compartment



17. Compartment 3: Photograph showing general view of Compartment



18. Compartment 4: Photograph showing semi-improved neutral grassland with scattered horse chestnut trees on the green at Godden Green



19. Compartment 4: Photograph showing grass verge



20. Compartment 4 (TN1): Photograph showing general view of pond at Godden Green



21. Compartment 5: Photograph showing general view of Compartment



22. Compartment 7: Photograph 1507 showing general open nature of this compartment

## Appendix B: Knole Park SSSI Citation

### COUNTY: KENT SITE NAME: KNOLE PARK

### DISTRICT: SEVENOAKS

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

Local Planning Authorities: Sevenoaks District Council

National Grid Reference: TQ(51)542538	Area: 376.20 (ha.) 929.21 (ac.)
Ordnance Survey Sheet 1:50,000: 188	1:10,000: TQ 55 SE & TQ 55 SW
Date Notified (Under 1949 Act): 1968	Date of Last Revision: 1981

Date Notified (Under 1981 Act): 1991

Other Information:

This site lies within the Kent Downs Area of Outstanding Natural Beauty.

#### Description:

Knole Park Site of Special Scientific Interest includes areas of acidic grassland, parkland, woodland and several ponds. It was a dead wood and ancient woodland invertebrate fauna which is regarded as the finest in Kent, and supports a rich fungus flora.

The first emparkments took place in the fifteenth century and probably included woodlands and have been managed as parklands to the present day. This continuity of habitat and management has led to the development of a parkland with ancient pollards believed to provide a direct link with the wildwood, together with more recent plantations. The site lies on the Folkestone, Sandgate and Hythe Beds on top of the Lower Greensand escarpment. The soils which derive from these strata are generally acidic and well-drained and support woodland stands dominated by sessile oak Quercus petraea, beech Fagus sylvatica and sweet chestnut Castanea sativa with some field maple Acer campestre, ash Fraxinus excelsior, downy birch Betula pubescens, sycamore Acer pseudoplatanus and hawthorn Crataegus monogyna. Grazing by fallow deer Dama dama and the Japanese species sika deer Cervus nippon and the acidic soils have formed species-poor ground floras and have severely limited the growth of a shrub layer and natural regeneration of tree species. Woodlands beyond the pale, or park boundary, have a more representative ground flora dominated by bramble Rubus fruticosus. Areas of dense bracken Pteridium aquilinum are also present on the woodland edge.

The central plateau supports species-poor acidic grasslands between the woodland areas. Common bent *Agrostis capillaris* dominates the turf, with sheep's fescue *Festuca ovina*, sweet vernal-grass *Anthoxanthum odoratum*, heath grass *Danthonia decumbens*, tormentil *Potentilla erecta*, sheep's-sorrel *Rumex acetosella* and heath bedstraw *Galium saxatile*. The sward contains numerous ant hills. More fertile grasslands occur on the golf course and in the valley bottoms. These are dominated by common bent and Yorkshire-fog *Holcus lanatus* together with crested dog's-tail *Cynosaurus cristatus*. The trees, turf and masonry of walls and buildings support a lichen flora of county importance. The first

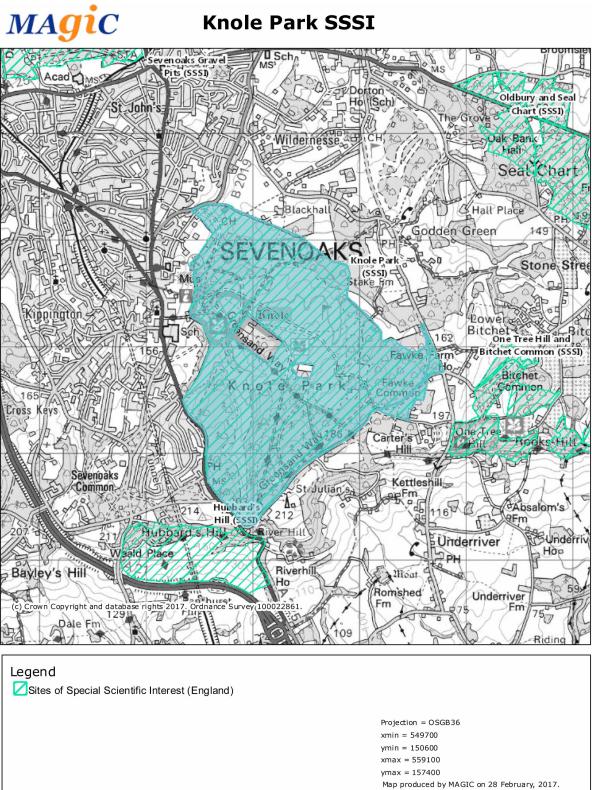
British record for the lichen *Parmelia elegantula* was made from a sycamore at Knole.

The site supports a range of nationally rare\*<sup>1</sup> and nationally scarce\*<sup>2</sup> invertebrate species which depend upon the parkland and woodland habitats, particularly on their dead wood components. A nationally rare beetle *Platypus cylindrus* is found in the ancient broad-leaved forest and parkland, boring into thick oak bark. A number of nationally scarce invertebrates occupy various ecological niches in the woodlands and parkland of this site. *Cerylon fagi* lives under bark and in dead wood habitats. *Bolitochara mulsanti* is a small rove beetle found under fungus-infected bark and in decaying fungus. *Dienerella elongata* is a tiny beetle found in leaf litter, moss and fungi on this site. The park supports several nationally scarce and local dung beetles, including *Aphodius zenkeri* and *Aphodius borealis* which feed on the dung of the deer.

Many species of fungus have been recorded from the site. Among the many which have restricted distributions are some living under trees, such as an earth star *Geastrum fornicatum* and a tube-gilled toadstool *Boletus pruinatus*, and many associated with dead wood. The latter include: *Fomes fomentarius* on beech, a polypore bracket fungus rare in the south east, but more common in Scotland on birch *Betulus* species, and two gilled bracket fungi, *Panellus serotinus* growing on standing trees, and *Schizophyllum commune* on recently fallen timber. Many commoner species have been recorded, including many species of *Coprinus, Mycena*, and wax-caps *Hygrophorus*.

\*<sup>1</sup> 'Nationally rare': recorded from 1--15 10km x 10km squares in Britain.

 $*^2$  'Nationally scarce': recorded from between 16 and 100 10km x 10km squares in Britain.

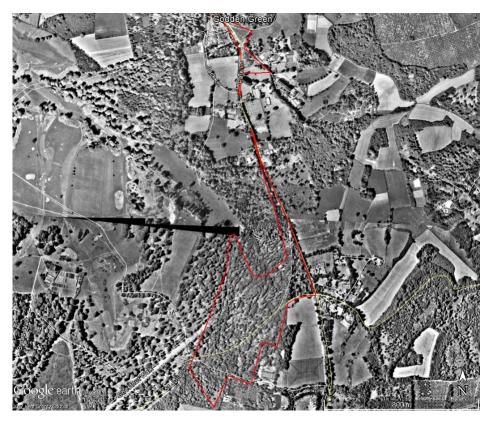


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# Appendix C: Google Earth Aerial photographic images 1940 - 2008

Fawke Common - 1940



Fawke Common - 1960



Fawke Common - 1990



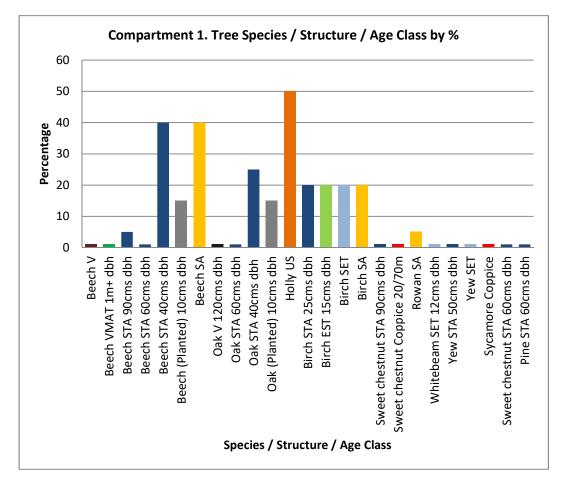
Fawke Common - 2008

## **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

### Compartment 1



50

### Compartment 2

