

Site Name: Recorder Number: Grid Ref: Parish: Ward: Area of SNCI: Previous SNCI surveys:

Date of current survey: Surveyor(s): **Little Flexford**

2443 SU 934 503 Normandy Normandy 1.6 ha 04/09/1995, Giles Groome

06/07/2016 & 28/07/2016 Isobel Girvan & Danial Winchester

Quality control

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the '*Guidelines for Preliminary Ecological Appraisal*' and '*Code of Professional Conduct*' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

		Date
Survey Ecologist	Isobel Girvan BSc (Hons) MCIEEM Danial Winchester Bsc (Hons) MCIEEM	Survey date 06/07/2016 & 28/07/2016
Report Author	Isobel Girvan BSc (Hons) MCIEEM	Date passed on for authorisation 20/09/2016
Approved by	Claire Gibbs BSc (Hons) MSc MCIEEM	Date authorised as complete 20/09/2016



Site description

The site, situated to the east of Wanbrorough, is composed of two horse-grazed, semi-improved neutral grassland paddocks, divided by a central stream. Typical of the underlying London Clay and the nature of the low-lying stream, soils are composed of heavy, base-rich surface-water gleys. The site is bordered by a railway along the northern edge, there are residential properties to the west and south and an arable field to the east.

Previous reason for selection

The site was originally selected in 1995 for '*its semi-improved grassland and stream supporting locally scarce plant species and Water Voles*.'

Ownership

The site is owned by a private landowner.

Habitat description and target notes

A full National Vegetation Classification (NVC) survey was not carried out, however where NVC communities are described these are those that, in the surveyor's opinion, best fit the habitats present at the site visit.

Throughout the descriptions, plants are referred to by their common names. For reference the full species list at the end of the report lists both common and scientific names.

Broad-leaved Semi-natural Woodland

This habitat type is shown in green on Figure 1. There are 3 areas of broadleaved semi-natural woodland described and labelled BW1 to BW3 on the map. See Photographs 1 to 3.

BW1 – There is a line of Hawthorn trees along the south eastern edge of the eastern field that leads into a wooded edge of a mix of Blackthorn, Pedunculate Oak, Hawthorn, Hazel, Grey Willow, Crack Willow, Dogwood, Elder, Dog Rose and accompanied by locally abundant Bramble, rare creeping Black Bryony and rare Field Rose. Crack Willow and Grey Willow are locally abundant along the northern edge of the eastern field.

This habitat has been included in the woodland as it represents a line of mature and maturing trees, formed from a derelict hedge. Therefore the NVC community is hard to define.

BW2 – The stream either side of the fields is lined by trees such as Alder, planted Weeping Willow and Crack Willow.

The NVC classification for this linear line of woodland is probably best described as a W6 *Alnus glutinosa – Urtica dioica* wet woodland.

BW3 – There are some sub-mature regularly planted Pedunculate Oak trees along the north and west edge of the western field. On the northern edge of the site there is some Hawthorn, Blackthorn, Hazel, Bramble scrub on the edge of the site accompanied by frequent Common Nettle, occasional Wood Dock, Hogweed, Herb Bennet, Herb Robert, Ash saplings and rare Broad-leaved Helleborine and Spear Thistle.

Under the Pedunculate Oak trees in the west there are also some Silver Birch and Goat Willow. It is generally grassy, Yorkshire-fog, Rough Meadow-grass, Creeping Bent and Perennial Rye-grass with tall ruderal weedy species such as Common Nettle, Creeping Buttercup, Hedge Bindweed, Himalayan Balsam, Selfheal, Broad-leaved Dock, Bramble and Great Willowherb. There are locally frequent patches of Red Clover, Cat's-ear, Toad Rush and Perforate St. John'swort.

Whilst this woodland has been planted up prior to the first survey of 1995, it broadly conforms to a W10 *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland.



Photograph 1: BW1



Photograph 2: BW2





Photograph 3: BW3

Broad-leaved Scattered Trees

This tree is shown as a green dot on Figure 1 and see Photograph 4. There is one open grown mature (potential veteran) on the western edge of the western field. From the aerial photograph is appears to be contiguous with the woodland.



Photograph 4: Open-grown Pedunculate Oak



Semi-improved Neutral Grassland

This habitat type is shown in orange, there are two fields labelled SNG1 and SNG2 on Figure 1. See Photographs 5 and 6.

SNG1 - Eastern Field

This pony grazed field is broadly isosceles shaped and edged by woodland. The overall look of the field is one of frequent Common Fleabane along with Broad-leaved Dock at this time of year as it is prominent above the grasses of frequent Rough Meadow-grass and Yorkshire-fog with occasional Cock's-foot. Towards the ground are other herbs such as frequent Silverweed, Creeping Buttercup, White Clover, Red Clover and Ribwort Plantain and less commonly Red Bartsia, Hairy Sedge, Hoary Ragwort, Clustered Dock and Self-heal.

In the north east corner the mix of herbs would suggest that it becomes damp in the winter as there is frequent Creeping Buttercup, Water Mint, Common Fleabane and Greater Bird's-foot Trefoil.

Along the north edge and again there is evidence of seasonally waterlogged soils with frequent Water Mint, Common Fleabane, Creeping Buttercup, Great Willowherb, Hemlock Water-dropwort and Hairy Sedge as well as locally frequent Redshank, Silverweed and Marsh Foxtail. Marsh Cudweed is locally dominant, producing grey-green tufted patches.

In the north west corner there is also a large population of the VC Scarce/ERL Least Concern (see Higher Plant List) Blue Water-speedwell, with dense clumps of Himalayan Balsam, Hemp Agrimony, Common Comfrey, Water Mint, Common Fleabane, Perforate St. John's-wort, Red Bartsia, Creeping Buttercup and rare Common Figwort, Common Nettle, Wild Teasel and Brooklime.

The field edges (east and north) merge into the woodland edge creating in places an intimate mix of grassland/tall ruderal vegetation and scrub, but for the purposes of mapping has been included in the grassland section. Vegetation along the eastern edge for example includes patches of Water Mint, Great Willowherb, Common Nettle, Bramble and rare Rough Chervil, Common Knapweed and Himalayan Balsam.

Towards the southern end of the field, where the ponies tend to spend most time, the ground is sparse tending towards trample resistant species including abundant Broad-leaved Dock, frequent Silverweed, Ribwort Plantain, Greater Plantain, Common Fleabane, Creeping Buttercup, with occasional Redshank, Knotgrass and White Clover and rare Red Bartsia.

SNG2 - Western Field

This square shaped field is grazed, although not at the time of the visit. It is broadly similar to the aforementioned field in composition. Yorkshire-fog is frequent along with Common Bent, Common Fleabane, Creeping Buttercup and White Clover. Occasional in the sward are Self-heal, Ribwort Plantain, Red Bartsia, Common Bird's-foot Trefoil, Meadow Buttercup, Daisy and rare Curled Dock, Oxeye Daisy and Perforate St. John's-wort.

Slight waterlogging and flooding from the stream has enriched the eastern edge next to the water and here there is a flush of locally frequent Water Mint, Creeping Buttercup with occasional Hoary Ragwort, Hairy Sedge, Greater Bird'sfoot Trefoil, Self-heal and Common Fleabane.

There is a fence line that has sectioned off the south eastern side of the field to prevent grazing, the resulting sward is a little more diverse and here frequent Crested Dog's-tail joins the grasses with locally abundant Sharp Flowered Rush as well as plenty of Rough Meadow-grass and Common Bent. As well as the aforementioned herbs there is locally frequent Greater Bird's-foot Trefoil, Meadowsweet and rare Water Mint here.

The fields are probably best described as MG6 *Lolium perenne – Cynosurus cristatus* grassland. The damper areas being more closely associated with an MG10 *Holcus lanatus – Juncus effusus* rush pasture.



Photograph 5: SNG1

Poor Semi-improved Grassland



Photograph 6: SNG2

This habitat type is shown in white and labelled SI on Figure 1, there is one area marked on the map. See Photograph 7.

This grassland is managed as a well mown lawn with Yorkshire-fog, Annual Meadow-grass, Common Mouse-ear, Dandelion, White Clover, Black Medick, Creeping Buttercup, Daisy and Smooth Hawk's-beard.





Photograph 7: Improved Grassland

Tall Ruderal

This habitat type is shown as terracotta diagonal lines on Figure 1. There is one area marked on the map, see Photograph 8.

Either side of this overgrown path in the south of the site is a scramble of tall ruderal species such as locally dominant Common Nettle, Yellow Loosestrife with frequent Cock's-foot, Rough Meadow Grass, Yorkshire-fog and occasional Cutleaved Crane's-bill, Creeping Buttercup, Cleavers and Smooth Hawk's-beard. On the western edge towards the stream are locally abundant Common Comfrey, Meadowsweet, Himalayan Balsam, Hemlock Water-dropwort and occasional Water Mint with some young Hybrid Black Poplar saplings.

Towards the northern end of this section of tall ruderal species there is a gate, where people come in off the track to follow the public footpath, the ruderal species a little more sparse and shorter and include locally frequent Pineappleweed, Cut-leaved Crane's-bill, Perennial Rye-grass, Cleavers, Ribwort Plantain, Greater Plantain, Hedge Mustard, Common Bent and Creeping Cinquefoil.

The tall ruderal weeds continue along the footpath (not mapped to aid visual representation of the main blocks of habitats). Species such as locally frequent Common Nettle, Cock's-foot, False Oat-grass, Creeping Buttercup, Bramble, Cleavers, Meadowsweet and Perforate St. John's-wort.

The diverse patches of tall ruderal vegetation have not been assigned an NVC classification.





Photograph 8: Tall Ruderal Vegetation

Standing Water

This pond is shown in blue on Figure 1.

Within the grounds of the house there is a large duck pond with two islands. There is a good deal of scrub and marginal vegetation, a mix of planted and native species. Dogwood, Common Comfrey, Meadowsweet, Montbretia, Common Nettle, Hemlock Water Dropwort, Willow sp., Hedge Bindweed, Creeping Buttercup, Hedge Woundwort, Water Figwort, Branched Bur-reed, Water Mint, Greater Celandine, Pendulous Sedge, Yellow Iris, Bittersweet, Common Reed, Reedmace, Grey Willow, Floating Sweet-grass and Hard Rush. On the island there is a Weeping Willow with Fuchsia and a rose species, the other also has a Weeping Willow with Great Willowherb, Hemlock Water Dropwort, Yellow Iris and Hemp Agrimony. There is little floating or emergent vegetation, probably due to the duck population.

The mix of native and non-native plants here make it difficult to assign an NVC classification.





Photograph 8: Pond

Running Water

The stream is shown as a blue line on Figure 1.

The stream runs down the centre of the site running south to north between two fields. At the northern end it goes through a culvert and under the railway. It is heavily shaded with tall garden planted trees in the southern half of this site, and with native trees shading the water in the northern half by the field. However, there are opportunities in the north for there to be enough light to allow marginal and emergent vegetation such as frequent Hemlock Water-dropwort, Creeping Buttercup, Hemp Agrimony and locally dominant Common Nettle. There are generally more species towards the northern end of the stream with occasional Water Mint, Brooklime and Fool's Water-cress on the water's edge. Close to the bridge there is a cluster of tall marginal vegetation such as locally abundant Himalayan Balsam and Hemp Agrimony with occasional Common Fleabane, Water Figwort and Meadowsweet. Here one plant of Ragged-Robin (ERL Near Threatened) was recorded.

No firm conclusion on the NVC of this habitat type was made, it is likely that it would partly still be classed as S14 *Spharganium erectum* swamp as per the 1995 survey.





Photograph 9: Stream

Introduced Shrubs

This habitat type is shown as terracotta cross-hatching on Figure 1. This refers to the garden planted shrubs found around the edge of the pond and on the island, see Standing Water section.

Native Species-rich Hedge with Trees

This habitat type is shown as a straight green line with splayed green dashes on Figure 1. There is one area of this type of hedge on the site.

The planted hedge separating the garden from the western field is composed of Hazel, Cherry Laurel, Bridlewort, Dogwood, Pedunculate Oak, Bramble, Field Maple, Silver Birch, Alder and Blackthorn.

Species-poor Hedge with Trees

This hedge is shown as a straight green line with cross hatching on Figure 1. There is one area of this type of hedge on the site.

The hedge abutting the garden in the south of the site is next to the stream and is mainly composed of Leyland Cypress trees and Cherry Laurel.

<u>Building</u>

This pony shed in the south east corner of the eastern field is represented by a black square on Figure 1.

Other non-plant species

Several butterflies were noted in the fields including Large White, Meadow Brown, Small White, Peacock, Comma, Speckled Wood Gatekeeper and Essex Skipper.



A number of birds were seen or heard particularly on the woodland edges such as Magpie, Goldfinch and Jay. A Coot was heard and then seen on the pond.

Does the site still support the features for which it was selected?

The site still supports the semi-improved mesotrophic grassland and stream which still supports locally rare plant species. An Ecological Appraisal carried out by ACD Environmental (ACD, 2016) reports signs of Water Voles (runs and a latrine) in 2016. No signs of Water Vole were found during this survey carried out by Surrey Wildlife Trust (SWT). In addition SWT Water Vole surveys north and south of Little Flexford in 2016 have also yielded no Water Vole signs.

Does the site meet the SNCI selection guidelines as revised in 2008?

The site meets the SNCI selection guidelines under the following criteria;

4b) Neutral Grassland – Grassland sites, which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which supports 15 or more of the species listed in Table 1 including at least 2 of the species in bold are likely to be of SNCI quality.

24d) Vascular Plants – Sites containing species identified by Surrey Botanical Society as rare and notable within Surrey.

A total of 18 Grassland Indicator species were recorded in the 2016 survey in including 3 in bold (see criteria, Gibbs 2008). They are:

Water Plantain Marsh Foxtail Wild Angelica False Fox Sedge Meadowsweet Trailing St. John's-wort Sharp Flowered Rush Meadow Vetchling Oxeye Daisy Common Bird's-foot Trefoil Greater Bird's-foot Trefoil Ragged-Robin (also ERL Near Threatened) Creeping-Jenny Red Bartsia Celery-leaved Buttercup Common Sorrel Marsh Ragwort Lesser Stitchwort Blue Water Speedwell (also ERL Least Concern/VC17 Scarce)

Giles Groome, during his SNCI survey in 1995, also recorded the following additional 5 species, three of which are in bold and all of which are on the ERL list:

Nodding Bur-marigold (also ERL Least Concern) Plicate Sweet-grass (also ERL Least Concern) Pepper-saxifrage (also ERL Least Concern)



Corn Mint (also ERL Near Threatened) Lesser Spearwort (also ERL Vulnerable)

The site may meet the SNCI selection guidelines under the following criteria;

Additional Information – The survey area falls within an area highlighted within the Water Vole Alert Map 2010 '*indicating areas with at least some potentially suitable habitat within water vole dispersal distance of population within the last five years*'. In addition the survey areas also falls within a Water Vole Local Key Area '*indicating areas* >/= 6km² that area likely to support larger populations/clusters of populations that have a greater chance of persisting long term'.

During this SNCI survey by SWT, the ecologist did not find any evidence of Water Voles and at the time concluded that the banks are not steep enough, with soft sediment and that the heavy vegetation renders the stream too shaded to support Water Voles. In addition SWT Water Vole surveys in 2016, both up and down stream, have not yielded any results.

However, ACD Environmental Ltd. report seeing a Water Vole latrine and runs during their Ecological Appraisal in 2016 (ACD, 2016). Therefore the following two criteria may have been reached for Water Voles, however the population numbers are unknown, and so we are unable to say if a viable population is present:

11e) Rivers, Canals and Streams – All stretches of river that support viable populations of Water Voles should be selected.

17b) Mammals – Water Vole – All sites known to support a viable population of Water Vole.

See appendices 1 and 2.

Site condition (surveyor's opinion) Unfavourable Declining

Whilst the reason for selection as an SNCI remains the same with regards to the criteria for the habitat and scarce plant population, the fields are being heavily poached during the winter. It is therefore likely that the continuing trend of increased coarse grasses and weedy plants will continue. Unfortunately this year Lesser Spearwort (ERL Least Concern) and Corn Mint (ERL Least Concern), Nodding Bur-marigold (ERL Least Concern), Plicate Sweet-grass (ERL Least Concern) and Pepper Saxifrage (ERL Least Concern), were not re-seen (having been recorded in the 1995 SNCI survey).

However this is somewhat countered by the new recording of Blue Water Speedwell (ERL Least Concern/VC17 Scarce) as well as Ragged-Robin (ERL



Near Threatened) that are included in the list of 18 Grassland Indicator Species (see species list).

Additional information or surveys required

No additional information or surveys are required to reassess the site's SNCI status.

Boundaries

If Water Voles are still present then the boundary of the SNCI including a buffer zone around the stream which includes the tall ruderal species and species-poor hedges with trees and the pond, seems to be a sensible approach. Under these circumstances no boundary changes are recommended.

Signs of damage

There are signs of over grazing in the winter leading to poaching as shown on the photographs provided by ACD Environmental Ltd (email 20th May 2016). Having said that, come the summer there were a good number of grassland indicators present and the poaching did not necessarily have a negative effect. However, the over poaching cannot be sustained as it will inevitably lead to the continued increase in coarse grasses and herbs such as Common Fleabane, thistles and docks.

There is a long established tall Leyland Cypress hedge along the garden edge of the stream. Due to the possible presence of Water Voles, consideration should go to its removal. This would open up the stream, allow emergent and marginal vegetation to grow in the stream and provide a more optimum habitat for the Water Vole. In addition, ideally the pond would be managed for conservation and Water Voles. This would include the removal of the fish. However, it is acknowledged that this is a garden pond and this is probably not desirable by the owners.

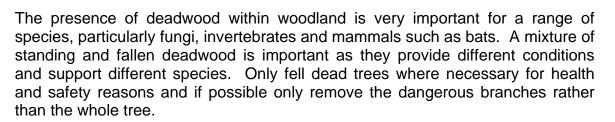
Current site management

The grassland is currently pony grazed. The stream is left unmanaged. The pond has fish and wildfowl present and other than trimming back of shrubs is left.

Management advice

Woodland

In order to maximise the biodiversity of woodland, it is important to create a diverse structure. In the case of this linear woodland edge this includes a canopy of mature trees, a shrub layer and a diverse scrubby ecotone edge to the fields. Trees should be of a range of ages and species.



Sycamore can be a problem in woodlands as it comes into leaf early, shading spring-flowering plants. Its leaf litter rots slowly and does not provide a good environment for ground flora. In addition it supports a lower diversity of insects than native trees. Consider thinning this species if it is becoming abundant (also see invasive species below).

When carrying out work in woodlands it is best to avoid the bird nesting season (March-August) and to avoid carrying out work when the ground is particularly soft to avoid damaging the soil. Protection from deer or rabbits may be necessary particularly of recently cut coppice stools. Wherever possible avoid planting as natural regeneration of woodland is most beneficial to the local ecology.

Wet woodland

Wet woodland is often found by streams and other water bodies and is normally dominated by Alder and Willow species. It often supports an interesting but fragile ground flora and invertebrate assemblage.

This type of woodland is often best left undisturbed as management work can easily damage their fragile soils. Natural processes will lead to trees reaching maturity and dying naturally thus creating gaps in the canopy. However, if coppicing has been a feature of the historical management of the woodland, this should be continued provided that it does not damage the ground too much.

<u>Scrub</u>

Scrub is often a component of other habitats and is often viewed as a negative element that needs to be controlled. However it supports a wide range of species and the transitional zone between scrub and other habitats is particularly important for many species including invertebrates, breeding birds and reptiles.

When managing scrub, it is important to maintain structural diversity and a range of age classes. Rotational cutting can help achieve this. Cutting the scrub back in some places can create a mosaic of scrub and grassland. Grazing also has a similar effect as long as the grazing pressure is not too high.

Wet Neutral Grassland

Neutral grassland requires active management in order to retain its conservation interest. Without management, tall vigorous grasses will dominate and dead plant matter will accumulate. This will suppress the less vigorous species and the botanical diversity of the grassland will decrease. The key to managing grasslands is to remove each year's growth of vegetation. This can be achieved



by grazing (as in traditional pastureland), cutting or a combination of the two (as in traditional hay meadows).

When grazing, aim to keep a relatively open sward without excessive poaching. The timing of grazing of pastures will depend on local conditions and the needs of particular species on the site. Light trampling is good as it provides bare areas for seed germination. Ideally aim for grass height of 5cm during the summer months and around 2cm for the winter.

Ponds

Without active management, natural succession will cause a build up of plants and silt within ponds. This will reduce the water depth and cause a build-up of nutrients. Eventually the pond will dry-up and become a muddy hollow. If there are a number of ponds on the site it may be desirable to let natural succession take its course as this late successional habitat will support a range of unique species. A new pond should be created on the site to replace the old one.

If the pond is to be maintained, periodic silt and plant removal will be required. It is important that only a section of the pond is worked on at a time to prevent causing too much disturbance to the pond life.

Non-native invasive species such as New Zealand Pigmy-weed and Parrot'sfeather can be a particular problem in ponds. These species should be removed as soon as possible if seen in the pond. Some native species such as Duckweed can also become a problem in ponds particularly if there is a high nutrient input. The input of silt and nutrients to the pond should be limited as much as possible.

Fish can be detrimental to pond wildlife, particularly amphibians and invertebrates. Bottom feeding coarse fish are particularly detrimental as they can uproot plants and disturb sediment. Avoid introducing fish to ponds where possible.

Surrounding trees may need to be cut back or coppiced occasionally so that the pond does not become too shaded and congested with leaf litter. Too much vegetation will inhibit floating and emergent vegetation and its associated invertebrate fauna.

Invasive species Himalayan Balsam

This species should be controlled as it is very invasive and will reduce species diversity. It is important that it does not spread further particularly into the ditches on the site. This species will require on-going control by pulling or cutting annually before it sets seed. The species is listed on Schedule 9 the Wildlife and Countryside Act 1981, which means that it is an offence to plant or cause the species to spread in the wild. Care should be taken if moving the species off site for disposal.

Cherry Laurel

If left unmanaged this species can easily spread and will subsequently become even more difficult to eradicate. Its tendency to form dense stands prevents



natural regeneration of the canopy, understorey and field layer severely degrading both the economic and biodiversity value of the site. Ideally the Cherry Laurel hedges would be gradually removed and replaced with suitable native local provenance hedge species such as Dogwood, Dog Rose, Hawthorn, Holly, Hazel, Blackthorn and Field Maple.

Potential grant aid

No grants are currently being claimed.

References / Bibliography

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Higher plant list

Abundance uses the DAFOR system; (Locally)Dominant, Abundant, Frequent, Occasional, Rare

[Please note that plants ranked are 'rare' means that they were not found often over this site and does not necessarily indicate that they are a County rarity]:

Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Acer campestre	Field Maple	R		\checkmark		
Acer pseudoplatanus	Sycamore	R				✓SWT
Achillea millefolium	Yarrow	R				
Aegopodium podagraria	Ground-elder	R				
Agrostis capillaris	Common Bent	LF				
Agrostis stolonifera	Creeping Bent	LF				
Alisma plantago-aquatica	Water-plantain	R	✓			
Alnus glutinosa	Alder	R				
Alopecurus geniculatus	Marsh Foxtail	R	\checkmark			
Alopecurus pratensis	Meadow Foxtail	R				
Anagallis arvensis	Scarlet Pimpernel	R				
Angelica sylvestris	Wild Angelica	R	\checkmark			
Anisantha sterilis	Barren Brome	R				
Anthriscus sylvestris	Cow Parsley	R				
Apium nodiflorum	Fool's Water-cress	LF				
Arrhenatherum elatius	False Oat-grass	R				
Arum maculatum	Lords-and-ladies	R				
Bellis perennis	Daisy	R				



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Betula pendula	Silver Birch	R				
Bromus hordeaceus ssp.						
hordeaceus	Soft-brome	R				
Calystegia sepium	Hedge Bindweed	R				
Carex hirta	Hairy Sedge	LF				
Carex otrubae	False Fox-sedge	R	\checkmark			
Carex pendula	Pendulous Sedge	R		\checkmark		
Centaurea nigra	Common Knapweed	R				
Cerastium fontanum ssp.						
Vulgare	Common Mouse-ear	0				
Chaerophyllum temulum	Rough Chervil	R				
Chelidonium majus	Greater Celandine	R				
Chenopodium polyspermum	Many-seeded Goosefoot	R				
Cirsium arvense	Creeping Thistle	LF				
Cirsium vulgare	Spear Thistle	R				
Convolvulus arvensis	Field Bindweed	R				
Cornus sanguinea	Dogwood	R				
Coronopus didymus	Lesser Swine-cress	R				
Crataegus monogyna	Hawthorn	LA				
Crepis capillaris	Smooth Hawk's-beard	R				
Crocosmia x crocosmiiflora	Montbretia	R				 ✓ Plantlife Critical / SWT
Cynosurus cristatus	Crested Dog's-tail	LF				
Dactylis glomerata	Cock's-foot	LF				
Dipsacus fullonum	Wild Teasel	R				
Dryopteris filix-mas agg.	Male Fern	R				
Elytrigia repens	Common Couch	R				
Epilobium ciliatum	American Willowherb	R				
Epilobium hirsutum	Great Willowherb	R				



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Epilobium montanum	Broad-leaved Willowherb	R				
Epilobium parviflorum	Hoary Willowherb	R				
Epipactis helleborine	Broad-leaved Helleborine	R		\checkmark		
Equisetum arvense	Field Horsetail	R				
Eupatorium cannabinum	Hemp-agrimony	LF				
Festuca rubra sens.str.	Red Fescue	R				
Filipendula ulmaria	Meadowsweet	LF	\checkmark			
Fraxinus excelsior	Ash	R				
Fuchsia magellanica	Fuchsia	R				
Galium aparine	Cleavers	LA				
Geranium dissectum	Cut-leaved Crane's-bill	R				
Geranium robertianum	Herb-robert	R				
Geum urbanum	Herb Bennet	R				
Glechoma hederacea	Ground-ivy	LF				
Glyceria fluitans	Floating Sweet-grass	R				
Gnaphalium uliginosum	Marsh Cudweed	LD				
Hedera helix ssp. helix	Common Ivy	LF				
Heracleum sphondylium ssp. sphondylium	Hogweed	R				
Holcus lanatus	Yorkshire-fog	0				
Humulus lupulus	Нор	R				
Hypericum calycinum	Rose-of-Sharon	R				
Hypericum humifusum	Trailing St. John's-wort	R	√			
Hypericum perforatum	Perforate St. John's-wort	R				
Hypochaeris radicata	Cat's-ear	R				
Impatiens glandulifera	Himalayan Balsam	LF				✓ Schedule 9 / SWT
Iris pseudacorus	Yellow Iris	R				
Juncus acutiflorus	Sharp-flowered Rush	LF	✓			



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Juncus bufonius	Toad Rush	R				
Juncus effusus	Soft Rush	R				
Juncus inflexus	Hard Rush	R				
Lamium album	White Dead-nettle	R				
Lapsana communis ssp. communis	Nipplewort	R				
Lathyrus pratensis	Meadow Vetchling	R	\checkmark			
Lemna minor	Common Duckweed	R				
Leucanthemum vulgare	Oxeye Daisy	R	\checkmark			
Lolium perenne	Perennial Rye-grass	0				
Lotus corniculatus	Common Bird's-foot Trefoil	R	\checkmark			
Lotus pedunculatus	Greater Bird's-foot-trefoil	LF	\checkmark			
Lychnis flos-cuculi	Ragged Robin	R	✓		 ✓ ERL Near Threatened 	
Lysimachia nummularia	Creeping-Jenny	R	✓			
Lysimachia punctata	Dotted Loosestrife	R				
Malus domestica	Apple	R				
Malva sylvestris	Common Mallow	R				
Matricaria discoidea	Pineappleweed	R				
Medicago lupulina	Black Medick	R				
Mentha aquatica	Water Mint	LF				
Myosotis arvensis	Field Forget-me-not	R				
Myosotis scorpioides	Water Forget-me-not	R				
Odontites vernus	Red Bartsia	LF	\checkmark			
Oenanthe crocata	Hemlock Water-dropwort	R				
Persicaria maculosa	Redshank	R				
Phalaris arundinacea	Reed Canary-grass	R				
Pinus sylvestris	Scots Pine	R				
Plantago lanceolata	Ribwort Plantain	R				



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Plantago major	Greater Plantain	R				
Poa annua	Annual Meadow-grass	R				
Poa trivialis	Rough Meadow-grass	0				
Polygonum aviculare agg.	Knotgrass	R				
Polypodium vulgare agg.	Polypody	R		\checkmark		
Populus x canadensis	Hybrid Black Poplar	R				
Potentilla anserina	Silverweed	LF				
Potentilla reptans	Creeping Cinquefoil	R				
Prunus avium	Wild Cherry	R		\checkmark		
Prunus spinosa	Blackthorn	LF				
Pulicaria dysenterica	Common Fleabane	F				
Quercus robur	Pedunculate Oak	LF				
Ranunculus acris	Meadow Buttercup	LF				
Ranunculus repens	Creeping Buttercup	0				
Ranunculus sceleratus	Celery-leaved Buttercup	R	\checkmark			
Rosa arvensis	Field Rose	R		\checkmark		
Rosa canina agg.	Dog Rose	R				
Rubus fruticosus agg.	Bramble	LF				
Rumex acetosa	Common Sorrel	R	\checkmark			
Rumex conglomeratus	Clustered Dock	R				
Rumex crispus ssp. crispus	Curled dock	R				
Rumex obtusifolius	Broad-leaved Dock	0				
Rumex sanguineus var. viridis	Wood Dock	R				
Sagina procumbens	Procumbent Pearlwort	R				
Salix alba	White Willow	R				
Salix babylonica	Weeping Willow	R				
Salix caprea	Goat Willow	R				
Salix cinerea ssp. oleifolia	Rusty Willow	R				
Salix fragilis	Crack Willow	LF				



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Salix sp.	a sallow	R				
Sambucus nigra	Elder	R				
Sasa sp.	a bamboo	R				Some species are on the Plantlife list
Scrophularia auriculata	Water Figwort	LF				
Senecio aquaticus	Marsh Ragwort	R	\checkmark			
Senecio erucifolius	Hoary Ragwort	LF				
Sison amomum	Stone Parsley	R				
Sisymbrium officinale	Hedge Mustard	R				
Solanum dulcamara	Bittersweet	R				
Sonchus asper	Prickly Sow-thistle	R				
Sonchus oleraceus	Smooth Sow-thistle	R				
Sparganium erectum	Branched Bur-reed	R				
Spiraea sp.	a bridlewort	R				Some species are on the Plantlife list
Stachys sylvatica	Hedge Woundwort	R				
Stellaria graminea	Lesser Stitchwort	R	\checkmark			
Symphoricarpos albus	Snowberry	R				 ✓ Plantlife Urgent / SWT
Symphytum officinale	Common Comfrey	R				
Tamus communis	Black Bryony	R		\checkmark		
Taraxacum sp.	a Dandelion	R				
Torilis japonica	Upright Hedge-parsley	R				
Trifolium dubium	Lesser Trefoil	R				
Trifolium pratense	Red Clover	LF				
Trifolium repens	White Clover	0				
Typha latifolia	Bulrush	R				



Scientific Name	Common Name	DAFOR	*Indicator Species	**Ancient Woodland Indicators	***County Notable	****Invasive species
Ulmus procera	English Elm	R				
Urtica dioica	Common Nettle	F				
Veronica anagallis-aquatica	Blue Water-speedwell	LF	✓		✓ERL Least Concern/VC17 Scarce	
Veronica beccabunga	Brooklime	R				
Veronica serpyllifolia	Thyme-leaved Speedwell	R				
Vicia cracca	Tufted Vetch	R				
Vicia sativa	Common Vetch	R				
Vinca major	Greater Periwinkle	R				
Vulpia bromoides	Squirrel-tail Fescue	R				
x Cupressocyparis leylandii	Leyland Cypress	R				
Total		161	18 (inc. 3 bold)	7	2	4

Additional species of interest recorded on the site in previous surveys

Scientific Name	Common Name	*Indicator Species	**Ancient Woodland Indicators	***County Notable	Date recorded	Recorder
Bidens cernua	Nodding Bur-marigold	•		 ✓ ERL Least Concern 	04/09/1995	Giles Groome
Bromopsis ramosa	Hairy Brome		✓			Giles Groome
Glyeria notata	Plicate Sweet-grass	✓		 ✓ ERL Least Concern 	04/09/1995	Giles Groome
llex aquifolium	Holly		✓		04/09/1995	Giles Groome
Mentha arvensis	Corn Mint			 ✓ ERL Near Threatened 	04/09/1995	Giles Groome
Phleum pratense	Timothy	\checkmark			04/09/1995	Giles Groome



Scientific Name	Common Name	*Indicator Species	**Ancient Woodland Indicators	***County Notable	Date recorded	Recorder
Ranunculus flammula	Lesser Spearwort			 ✓ ERL Vulnerable 	04/09/1995	Giles Groome
Schedonorus arundinaceus	Tall Fescue		\checkmark		04/09/1995	Giles Groome
Silaum silaus	Pepper-saxifrage	V		 ✓ ERL Least Concern 	04/09/1995	Giles Groome
Total		4 (inc 3 in bold)	3	5		

*Species typical of grassland of conservation interest in Surrey (as listed in Guidance for the Selection of SNCIs in Surrey, May 2008). Those in bold are those that are also in bold in Table 1 of the SNCI Guidelines.

Ancient Woodland Indicator species (as listed for the Nature Conservancy Council South-East Region, see Rose 2006) *Species that are Rare, Scarce or of Conservation Interest in Surrey (as listed on the Draft Surrey Botanical Society County Rare Plant Register Sep 2011).

****Invasive species;

- Schedule 9: Species as listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended),
- Plantlife, 2010: Species identified as Critical, Urgent or Moderate risk within Horizon Scanning for Invasive non-native plants (Plantlife, 2010),
- SWT, 2012: Species listed within Surrey Non-native Invasive Species List (SWT, 2012).



Appendix 1: Habitat guidelines

SNCI selection Habitat Guidelines (Gibbs, 2008), summary of results and rationale with the rationale based upon the findings of the survey.

Habitat	Notes	Result
1) Woodland		
a) All sites containing over 5ha of ancient semi-natural woodland (ASNW).		None present.
b) Other ancient woodland including plantations on ancient woodland sites where there is a significant element of the original semi-natural woodland surviving.		None present.
c) Areas of woodland which are not themselves ancient but which are immediately adjacent to ancient woodland sites should also be considered for selection.		Not present.
d) Other semi-natural woodland comprising important community types of restricted distribution in the county. This will include;		
e) Wet woodland falling within NVC types; W1, W2, W4c, W5, W6 and W7	Very small linear woodland by stream perhaps best described as NVC W6.	Present in very small quantity. Part of the mosaic of habitat present, not the principle habitat.
f) Lowland Beech, Yew and Box Woodland falling within NVC types; W12, W13, W14 and W15		Not present.
g) Wealden gill woodland		Not present.
h) Sites supporting a significant population of a species as discussed in the species guidance.	See Appendix 2.	
2) Wood Pasture, Parkland and Veteran Trees		
a) Wood pasture and parkland over which can demonstrate 3 or more of the features defined in the selection guidelines (Gibbs 2008) should be considered for selection.		Not present.



Habitat	Notes	Result
b) Groups of 3 or more ancient or veteran trees as defined in the selection guidelines (Gibbs 2008) within 0.25ha.	One open grown mature potential future veteran Pedunculate Oak tree present in western field.	Not present.
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
3) Traditional Orchards	1	i
 a) Traditionally managed orchards of biodiversity value, as defined in the selection guidelines (Gibbs 2008). 		Not present.
b) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
4) Neutral Grassland		
a) All sites supporting the following NVC communities; MG4, MG5 or MG8.	Fields have been classed as MG6.	Not present.
b) Grassland sites which support a high (> / = 15, including 2 of the species in bold) diversity of species typical of grassland of conservation interest in Surrey.	The current survey recorded 18 indicator species including 3 species in bold. The 1995 survey provided a further 4 indicator species of which 2 are bold.	Present.
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
5) Acidic Grassland		
a) All sites supporting the following NVC communitiesU1, U2, U3, U4 or U20a.		Not present.
b) Grassland sites which support a high (> / = 15, including 2 of the species in bold) diversity of species typical of grassland of conservation interest in Surrey.	See Neutral Grassland section.	Not present.
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
6) Calcareous Grassland		



Habitat	Notes	Result
a) All sites supporting the following NVC communities: CG2, CG3, CG4, CG5, CG6 or CG7.		Not present.
b) Grassland sites which support a high (> / = 15, including 2 of the species in bold) diversity of species	See Neutral	
typical of grassland of conservation interest in Surrey.	Grassland section above.	
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
7) Heathland		
a) All areas of heathland vegetation; including matrices of dwarf shrub, bare ground, grassland, valley mires and scrub should be considered.		Not present.
Heathland over 2ha would automatically qualify.		
b) Areas of heathland which are heavily afforested or have succeeded to mature woodland with potential to be restored to heathland and either;		Not present.
retain sufficient remnants of heathland or		
are contiguous with, or form an integral part of an area of heathland.		
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
8) Standing open water	1	1
a) Any lake classified by the UK Lakes HAP joint steering group as Tier 1 or Tier 2 where not already		Not present.
covered by other designations.		
b) Ponds that qualify under the criteria for UK BAP priority habitat.		Not present.
c) Water bodies or clusters of water bodies which support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
9) Wetlands		
a) All reedbeds over 2ha.		Not present.
b) Reedbeds of between 0.25 and 2ha where they form part of a wider habitat mosaic.		Not present.
c) Fens, mires, swamps and marshes over 2ha with flora characteristic of the following NVC		Not present.
communities: M6, M21, M24, M25, M27, M29, S3, S4, S5, S6, S7, S8, S9, S10, S12, S13, S14, S15,		
S16, S19, S22, S23, S26, S27, S28.		
d) Fens, mires, swamps and marshes (NVC as above) of between 0.25 and 2ha where they form part of a wider habitat mosaic.		Not present.
e) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
10) Floodplain Grazing Marsh		•



Habitat	Notes	Result
a) All floodplain grazing marsh over 5ha that is not designated as SSSI.		Not present.
b) Floodplain grazing marsh of less than 5ha where it forms part of a wider habitat mosaic of water-		Not present.
dependent habitats, or where it links SSSIs.		
c) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2.	
11) Rivers, Canals and Streams		
a) Chalk stream.		Not present.
b) River classed by the Environment Agency as Grade A within the GQA.		Not present.
c) River with a HMS of 0 (classified as "pristine" by RHS).		Not present.
d) River with a conservation evaluation of either "Critical" or "Important" within strategic RCS.		Not present.
e) River that supports viable populations or spawning sites of animals listed in guidelines.		Not present.
f) Sites that support a significant population of a species as discussed in the species guidance.	See Appendix 2	
12) Open Mosaic Habitats on Previously Developed Land		•
a) Open Mosaic habitat sites where;		Not present.
 6 or more of the characteristic features are found. 		
 Form part of a wider complex of similar areas, providing long term habitat opportunity. 		
There is a significant invertebrate assemblage.		
b) Sites that support a significant population of a species as discussed in the species guidelines.	See Appendix 2.	
13) Arable		
a) Meets criteria for Important Arable Plant Areas and not covered by other designation.		Not present.
b) Supports a significant population of a species as discussed in the species guidance.	See Appendix 2.	
14) Scrub Communities		N/A
When selecting sites based on other habitats all areas of associated scrub should be identified and		
included within the SNCI boundary.		
15) Community and access	Privately owned	Not relevant.
a) Sites that serve as Accessible Natural Greenspace within urban areas.	land.	
Sites that are close to but do not fully meet the habitat or species guidelines may be considered for		
selection if they meet this criteria.		
16) Geology and Geomorphology		Not present.
RIGS regarded as the geological equivalent of SNCIs.		



Appendix 2: Species guidelines

SNCI selection Species Guidelines (Gibbs, 2008), summary of results and rationale based upon survey

Species	Notes	Result
17) Mammals	·	
Sites with known populations of:		
a) Dormouse		Unknown.
b) Water Vole	2016 records of Water Vole from ACD Environmental Ltd. Latrines, runs and footprints were seen (email 20 th May 2016).	Present, population numbers and viability unknown.
c) Otter		Unlikely.
18) Mammals – Bats	1	
a) Contains a 'significant' bat breeding roost or hibernation site.		Unknown.
b) Any breeding roost or hibernation site used by multiple bat species concurrently.		Unknown.
c) Foraging sites with more than 5 species recorded or used by Annex II species.		Unlikely.
19) Amphibians		
a) Supports populations of Natterjack Toad.		Unknown, not likely.
b) Regularly record 'good' or 'exceptional' breeding populations of Great Crested Newt.	Potential for GCN, suitable terrestrial habitat is present. Pond contains fish therefore less likely.	Unknown.
c) Supports populations of four or more native amphibian species.	Pond contains fish therefore unlikely.	Unlikely, but unknown.
d) 'Exceptional' populations of any amphibian species.	Pond contains fish therefore unlikely, potential terrestrial habitat around.	Unlikely, but unknown.
e) 'Good' populations of 3 or more native amphibian species.	Pond contains fish therefore unlikely, potential terrestrial habitat around.	Unlikely, but unknown.
20) Reptiles	·	
a) Supports populations of Smooth Snake or Sand Lizard.		Unlikely.
b) Populations of 3 or more native reptile species.		Unlikely.
c) 'Exceptional' population of a single reptile species or a 'good' population of Adders		Unlikely.



Species	Notes	Result
d) Assemblage of species scoring at least 4		Unlikely.
points.		
21) Birds		
a) Holds more than 10% of Surrey's breeding		Very unlikely.
or wintering population of a species.		
b) Supports species on the conservation		Very unlikely.
concern list for Surrey categories 1-3.		
c) Supports a breeding bird assemblage or	Habitat not present	Very unlikely.
wintering waterbird assemblage of county	in sufficient area.	
importance.		
22) Invertebrates		
a) Supports one or more nationally rare or		Unknown.
declining species as listed in the latest national		
Red Data Books or lists.		
 b) Supports an important assemblage or 		Unknown.
population(s) of a BAP priority species.		
 c) Supports an important assemblage or 		Unknown.
population(s) of a nationally scarce species.		
23) Additional Invertebrate Guidelines		
a) Meet the British Dragonfly Society criteria for		Unknown,
Key Dragonfly Sites		but unlikely.
b) Supports a butterfly species within list A.		Unknown,
		but unlikely.
c) Supports a locally notable population of four		Unknown,
or more of the butterfly species within list B.		but unlikely.
d) Sites with a Species Quality Score of greater		Unknown,
than 4 for Wasps, bees & Ants.		but unlikely.
24) Vascular Plants		
a) Supports one or more species included in	No RDL plants	Very unlikely.
the latest national Red Data List for plants.	recorded.	
b) Supports an important assemblage or	No UK BAP Priority species recorded.	Very unlikely.
population(s) of a UK BAP priority species.	2 ERL Least	Present.
c) Supports a nationally scarce species.	Concern recorded	Flesent.
	in 2016, 1 ERL	
	Near Threatened &	
	1 ERL Vulnerable	
	recorded in 1995.	
d) Supports species identified by Surrey	See above.	Present.
Botanical Society as rare and notable within		
Surrey.		
e) Sites selected as Important Plant Areas by		Not selected.
Plantlife.		
25) Lower Plants & Fungi		
a) Supports one or more nationally rare or		Unlikely, but
declining species as listed in the national Red		unknown.
Data Books.		
b) Supports an important assemblage or		Unlikely, but
population(s) of UK BAP priority species.		unknown.
c) Supports a nationally scarce species.		Unknown.



Guildford Borough SNCI Surveys 2016: Existing Site		
Species	Notes	Result
d) Sites classified as Important Fungus Areas		Not
by Plantlife.		classified.
e) Sites classified as Important Stonewort		Not
Areas by Plantlife.		classified.



Appendix 3: General guidelines

Sites that are close to, but do not quite met the detailed habitat and species guidelines later in the report may be considered for selection where they are judged as important using the general guidelines below.

These general guidelines are based upon the Ratcliffe Criteria (1977), for assessing the nature conservation value of a proposed SNCI with the rationale based upon the findings of the survey.

Selection Criteria	Analysis of site against criteria
Rarity	No rare or scare habitats were recorded.
Diversity	The site is considered to be botanically and structurally diverse.
Size	The site is 1.6 ha in size, which is relatively small.
Naturalness	Deliberately planted non-native species and accidentally introduced invasive plant species are present.
Typicalness	Horse grazed fields are fairly typical of the surrounding area. However the dmap nature of the grassland, unusual swad compisiton, the stream and wooded edge is not typical.
Fragility	The grassland is relatively fragile and requires management. The stream is not managed but one pollution incident would dramatically reduce its biodiversity for that stretch. Ideally all streams should have a wide buffer zone.
Replacability	Whilst horse grazed fields are relatively common in this part of Surrey, the damp nature of the grassland, unusual sward composition, the stream and wooded edge does set is apart from other fields and therefore would be difficult to replace.
Position in ecological unit / Connectivity with the landscape	The site falls within a network of similar sites and the stream is connected to other similar habitats.
Educational value and value for the appreciation of nature.	This site is privately owned. There is a public footpath through the site, which does get used by local walkers and dog owners.
Potential value	Improving the management by reducing poaching, opening up the stream, and reducing the non-native and invasive species would enhance the overall biodiversity and ecological value of the site.



Selection Criteria	Analysis of site against criteria
Recorded history	It is thought that the first survey was in 1995. The
and cultural	site has been recently visited by the private owners
associations	own commissioned ecologists. Casual recording from the paths has also been made in 2013 and
	2015.

