

Ferris Meadows SNCI Survey

Spelthorne District Council



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1 Summary

- 1.1.1 Surrey Wildlife Trust (SWT) Ecology Services was commissioned on 29th May 2019 by Spelthorne Borough Council to undertake a SNCI survey of Ferris Meadows. This is part of an ongoing rolling review of SNCIs in the Borough by SWT Ecology Services this year.
- 1.1.2 The SNCI survey is required in order to:
- Gather evidence to help determine whether the site meets the Guidance for the Selection of SNCIs (Surrey Wildlife Trust, 2008)
 - Determine whether the boundary of the SNCI continues to be appropriate
 - Identify opportunities for positive management to improve the condition of the SNCI.
- 1.1.3 The SNCI survey included a Phase 1 habitat survey to assess the habitats present within the survey area. During the survey an assessment of the boundaries of the site was undertaken.
- 1.1.4 The survey visit was undertaken on 28th May 2019.
- 1.1.5 The following seven Phase I habitat types were recorded during the field survey:
- Broad-leaved semi-natural woodland
 - Semi-improved neutral grassland
 - Tall ruderal vegetation
 - Standing water
 - Bare ground
 - Hard standing & buildings
- 1.1.6 The site still supports one of the features for which it was originally selected, that being wetland habitats and may still support the other features, that being a population of Fringed Water-lily and wintering wildfowl and summer breeding birds.
- 1.1.7 The site meets the SNCI selection guidelines under the following criteria;
- *8a Any lake classified by the UK Lakes HAP joint steering group as Tier 1 or Tier 2 where not already covered by other designations.*
 - *9d Fens, mires, swamps and marshes (NVC as above) of between 0.25 and 2ha where they form part of a wider habitat mosaic.*
- 1.1.8 The site nearly meets the SNCI selection guidelines under the following criteria;
- *4b Grassland sites which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which support 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.*
- 1.1.9 The site may meet the SNCI selection guidelines under the following criteria;
- *21 c Supports a breeding bird assemblage or wintering waterbird assemblage of county importance.*
 - *24 c Supports a nationally scarce plant species & 24 d supports species identified by Surrey Botanical Society as rare and notable within Surrey.*
- 1.1.10 Under the general guidelines based on the Ratcliffe Criteria (Ratcliffe, 1977), the site is particularly important for its position in ecological unit and connectivity with the

landscape. The site falls within a network of similar sites and is well connected to other similar habitats. It also falls in the TV04 BOA Thorpe and Shepperton and next to R06 BOA River Thames – main river.

- 1.1.11 Whilst it still qualifies as an SNCI, further information on the current status of the wintering wildfowl and summer breeding birds is recommended.
- 1.1.12 No changes to the SNCI boundary are recommended.
- 1.1.13 Management recommendations to enhance the biodiversity value of the site are given in section 5.
- 1.1.14 The information within this report will be provided to the Local Sites Partnership (LSP) who will make recommendations to Spelthorne Borough Council for any changes to the SNCI network as a result of this evaluation.



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Figure 1
Ferris Meadow SNCI
Phase One Habitat Survey Results



Ecology
Services

Figure 2: Ferris Meadows SNCI within BOA network TV04

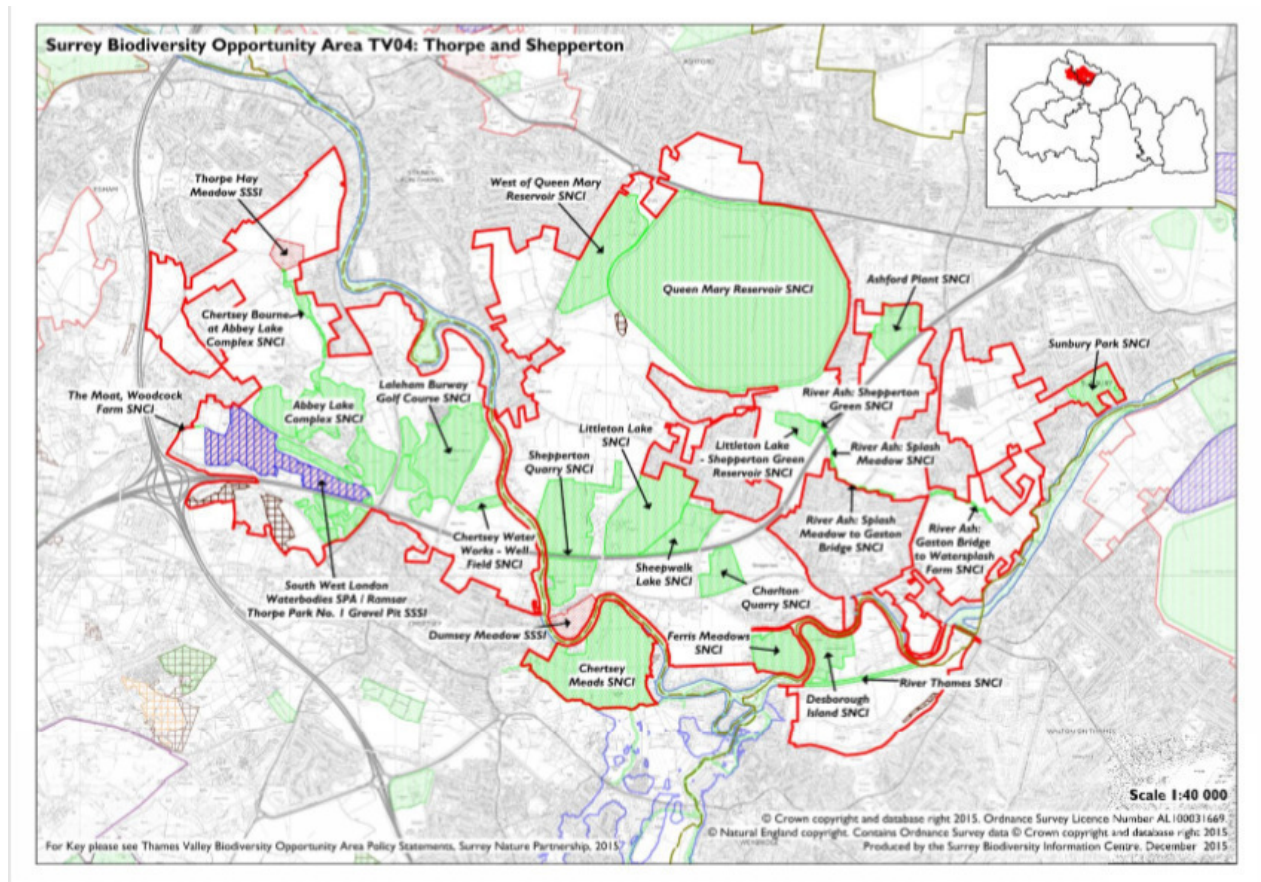


Figure 3: Site photographs



Photograph 1: TR1



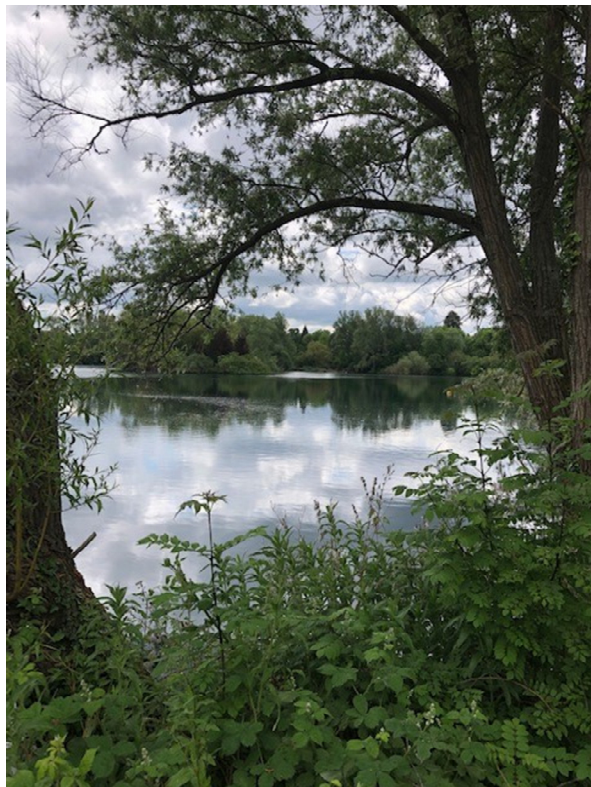
Photograph 2: SNG1 & BW1



Photograph 3: BW2



Photograph 4: BW2, track, SNG1 & MV1



Photograph 5: SW1



Photograph 6: MV1



Photograph 7: TR3, SNG1 & SNG4



Photograph 6: SNG1 & MV1



Photograph 9: SNG2, BW1 & BW6



Photograph 10: SNG3



Photograph 11: BW5 & track



Photograph 12: MV2



Photograph 13: SNG5 & sailing club

2 Introduction

2.1.1 Surrey Wildlife Trust (SWT) Ecology Services was commissioned on 29th May 2019 by Spelthorne Borough Council to undertake a SNCI survey of Ferris Meadows. This is part of an ongoing rolling review of SNCIs in the Borough. SWT Ecology Services has undertaken survey work for Spelthorne Borough Council as part of a programme to monitor and review the Sites of Nature Conservation Importance (SNCI) network in the Borough.

2.2 Scope of work

2.2.1 The aim of this report is to:

- Gather evidence to help determine whether the site meets the Guidance for the Selection of SNCIs (Surrey Wildlife Trust, 2008)
- Determine whether the boundary of the SNCI continues to be appropriate
- Identify opportunities for positive management to improve the condition of the SNCI.

2.2.2 The information within this report will be provided to the Local Sites Partnership (LSP) who will make recommendations to Spelthorne Borough Council for any changes to the SNCI network as a result of this evaluation.

2.2.3 The information and data provided have been prepared in accordance with current best-practice guidance (CIEEM 2017a) and British Standard Institution (2013). Our ecologists are bound by CIEEM's code of conduct (CIEEM 2017b).

2.3 Survey area

2.3.1 Ferris Meadows is a former gravel extraction site, now supporting a large lake in Spelthorne Borough Council. The lake supports a fringe of woodland, tall ruderal vegetation and marginal vegetation with semi-improved neutral grassland surrounding it. A sailing club is located to the north of the site.

2.3.2 The survey area, presented in Figure 1, comprises land within the SNCI boundary, the lake was not accessed. It is approximately 18 ha, located at Ferry Lane, TQ076662. The site is bounded by the River Thames on the eastern and southern edges, with a backwater on the northern edge, Ferry Lane runs along the western boundary. The surrounding area comprises the Thames River flowing from the west to east, with interconnecting backwaters. There is a cut off tributary called Broad Water to the south and Engine River also to the south. To the north is Halliford Mere lakes and gravel pits beyond the M3. These are intermixed with meadows and fields.

2.4 Ownership

2.4.1 The site is owned by a private landowner.

2.5 Methodology

Desk Study

2.5.1 The following information was reviewed prior to visiting the site:

- The reasons for selection of the SNCI
- Previous surveys on the site
- Defra MAGIC Maps
- Surrey ancient woodland inventory (Davies, 2011)

- Biodiversity Opportunity Areas map

Phase 1 habitat survey

- 2.5.2 The Phase 1 habitat survey was undertaken within the survey area. Survey methods followed best-practice guidance (JNCC 2016). A Phase 1 habitat survey is a standardised system for classifying and mapping habitats within the UK. The survey comprised a systematic search of the survey area, during which surveyors recorded habitat types and mapped their boundaries. Habitat types were defined as per the Phase 1 habitat survey criteria.
- 2.5.3 Within each habitat type a record of the vascular plant species was made and an assessment of their abundance recorded. Abundances of each vascular plant species within each habitat type are based on the DAFOR scale. DAFOR is a visual technique to describe botanical composition of habitats. The following definitions are as a guide only as there is no strict definition therefore expert interpretation is required when applying the scale.
- Dominant – more than 75% cover, the most common plant by far
 - Abundant – 75-51% cover, very common plant
 - Frequent – 50-26% cover, found in several places on site whose populations are large
 - Occasional – 25-11%, found in several places on site whose populations are small
 - Rare – 10-1%, plants found in small numbers
- 2.5.4 The species list in Appendix 1 uses the double DAFOR or DDAFOR system on some of the species present, where relevant. The DDAFOR system records two abundance values, whereby the first value is an assessment of the overall abundance of species and the second value indicates whether the species is distinctly clumped or is significantly more abundant locally.
- 2.5.5 Nomenclature of vascular plants followed Stace (2019). Common names are presented in the text, with scientific names detailed in Appendix 1.
- 2.5.6 A record was also made of any fauna that was incidentally recorded.
- 2.5.7 The presence of any non-native invasive species was noted.
- 2.5.8 Notable observations were recorded during the survey as target notes.
- 2.5.9 The survey visit was undertaken on 28th May 2019 by Isobel Girvan BSc (Hons) MCIEEM - Principal Ecologist .

Evaluation of the site

- 2.5.10 The information collected during the information review and Phase 1 habitat survey was used to assess whether the site meets the Guidance for the Selection of SNCIs (Surrey Wildlife Trust, 2008) and whether the boundary of the SNCI continues to be appropriate.
- 2.5.11 Opportunities for positive management to improve the condition of the SNCI were identified.

2.6 Limitations

- 2.6.1 Phase 1 habitat surveys can be undertaken at any time of year, with the optimal season being between March and September, when most plant species are visible. Where

feasible, all efforts were made to schedule the survey in optimal weather conditions and time of year. Nevertheless, field surveys usually fail to record all species present for various reasons, including the seasonal absence of some species, and short survey duration. Rare or cryptic species are often missed in short surveys.

- 2.6.2 The survey was undertaken in good weather conditions, warm and dry.
- 2.6.3 The lake was accessed from the edge only, where there were gaps in the edge woodland and scrub. However enough of the marginal and emergent vegetation was surveyed for this not to be a limiting factor in the overall survey. Although it would have been useful to access the water, this could not be done due to health and safety.
- 2.6.4 Based on the above, a full appraisal of the plant species and habitats present could be undertaken and the survey was conducted within the optimal timeframe.
- 2.6.5 As the primary purpose of the investigation was to assess the habitats present and whether the site meets the Guidance for the Selection of SNCIs, the information review, combined with the field survey, were sufficient to complete this aspect of the assessment.
- 2.6.6 The Defra guidance on Local Wildlife Sites (Defra, 2006) recommends that sites are reviewed regularly. It is recommended that habitats, such as woodland, should be monitored every 10 years while less stable habitats, such as grassland and heathland, should be monitored every five years.

3 Baseline Conditions

3.1 Desk study results

Previous reason for selection

- 3.1.1 The site was originally selected in 1996 for '*This wetland habitat supports typical plants including Fringed Water-lily, a county rarity. It also supports important number of wintering wildfowl and summer breeding birds.*'

Previous surveys on the site

- 3.1.2 The following surveys have been undertaken on the site in the past;
 - 2nd July 1996 Imogen Davenport – SNCI report
 - 19th August 2008 Sue Cooper – Notes on an aquatic vegetation survey of the lake at Ferris Meadows
 - 6th October and 5th November 2010 Isobel Girvan – Ferris Meadows Ecological Assessment Report

Statutory and non-statutory designated sites in the local area

- 3.1.3 One statutory designated site was recorded, Chertsey Meads Local Nature Reserve (LNR), which is located approximately 960m to the west.
- 3.1.4 No other statutory designated sites were recorded (Special Protection Areas (SPA), Special Areas of Conservation (SAC) or Sites of Special Scientific Interest (SSSI)) within 1km of the site. Ferris Meadows is approximately 4km from the nearest SPA.
- 3.1.5 Five non-statutory designated sites, comprising Sites of Nature Conservation Importance (SNCI), were recorded within 1km of the survey area:

- River Thames SNCI lying to the north, east and south of the site, immediately adjacent. Reason for SNCI selection is for its rich macro-invertebrate fauna, it falls within the top 10% of UK waterways. Other notable species include Bullhead (BAP long list), Barbel and Brook Lamprey (BAP long list).
- Desborough Island SNCI on the other side of the Thames and to the east of the site approximately 50m away.
- Charlton Quarry SNCI lying to the north of the site by approximately 460m.
- Sheepwalk Lake SNCI lying to the north of the site by approximately 950m. An important wetland for both wintering and summer breeding birds. Nearly 300 terrestrial and aquatic species have been recorded including a County rarity and other notable species.
- Chertsey Meads SNCI located to the west of the site by approximately 960m selected for its species rich unimproved grassland.

Ancient woodland

- 3.1.6 Woodland within the SNCI is not classified as ancient semi-natural woodland (Davies, 2011).
- 3.1.7 No parcels of ancient woodland were identified within 1km of the survey area.

Biodiversity Opportunity Areas

- 3.1.8 The survey area is located within the TV04 Thorpe and Shepperton Biodiversity Opportunity Area (BOA). It is also immediately adjacent to the R06 River Thames BOA.

3.2 Phase 1 habitat survey results

- 3.2.1 Seven habitats were recorded during the Phase 1 habitat survey. The location of these is presented in Figure 1 and photographs are presented in Figure 3. A summary of each habitat is provided below in Table 1.
- 3.2.2 A total of 178 vascular plants were recorded during the survey. This is a high number given the habitats present, area available for surveying and the time of year. Of these 13 are 'Species typical of grassland of conservation interest in Surrey' (as listed in Guidance for the Selection of SNCIs in Surrey, May 2008). Nine are ancient woodland indicator plants for the south-east, (Kirby, 2004). None are notable plant species as listed on the Draft Surrey Rare Plant Register (Sankey, 2019).
- 3.2.3 Five non-native invasive plant species were recorded. Three are listed on Schedule 9 of the Wildlife and Countryside Act 1981, one is identified by Plantlife as Critical, Urgent or Moderate risk (Plantlife, 2010) and one species is listed within the Surrey Non-native Invasive Species List (SWT, 2012).
- 3.2.4 A list of vascular plant species recorded and their abundance and status is provided in Appendix 1.



Table 1: Phase 1 habitat survey results

Phase 1 habitat	Map code	Photo No.	Description
Broad-leaved semi-natural woodland	BW1-BW7	2, 3, 4, 9 & 11	BW1: The long linear stretch of woodland around the edge of the lake (south and west edges) comprises Weeping Willow, White Willow, rare Crack Willow and Rusty Willow with occasional Ash and patches of Osier. There is also a scrub element under and around the woodland particularly in the north, with locally frequent Dog Rose, Elder and Hawthorn with less common Dogwood and rare Red Currant. BW2: The thin stretch of woodland in the north west of the site (either side of the track) contains frequent Sycamore, occasional White Willow, Crack Willow, and Elder with Bramble, Common Nettle, Cleavers, Common Ivy and young Sycamore underneath. BW3: The northern part of the site contains woodland. The woodland here is varied with White Willow, Sycamore and large Horse-chestnut, along with Portugal Laurel, Hawthorn, Elder and Hybrid Black Poplar, Alder and Grey Poplar. Under which comes Common Ivy (and Irish Ivy), Cleavers, Wood Dock and Hop. The vegetation is mown under the Horse-chestnut. BW4: On the northern edge of the lake, the promontory produces a linear stretch of woodland of trees such as London Plane, Ash, Norway Maple and Common Lime. BW5: The woodland to the north of the site by the track and near the sailing club contains London Plane, hybrid Black Poplar (with some mature examples), and Sycamore, with crowded Bird Cherry, Hawthorn scrub and Bramble underscrub with locally abundant Hemlock leading up to the sailing club area. By the sailing club on the northern edge are pollarded Alder, Crack Willow, Grey Willow, Ash and Sycamore and large Hybrid Black Poplar. BW6: Trees along the edge of the Thames include Ash, Alder, Sycamore, Elder and Osier. BW7: Line of trees and shrubs (a former hedge now outgrown) alongside Ferry Lane include Ash, with frequent hawthorn and edge with Sycamore and Grey Poplar. Bramble is locally frequent with climbers such as Common Ivy, Traveller's-joy and Hop.
Semi-improved neutral grassland	SNG1-SNG5	2, 4, 7, 9, 10 & 13	SNG1: A mown grassland strip around the lake to the north and east has frequent to occasional grass species such as Perennial Rye-grass, Rough Meadow-grass, Annual Meadow-grass, Yorkshire-fog and Red Fescue with occasional herbs such as Daisy, Dove's-foot Crane's-bill, White Clover, Creeping Cinquefoil, Creeping Buttercup, Yarrow, Ribwort

			Plantain, Cut-leaved Crane's-bill, Greater Plantain, Self-heal and rare Silverweed and Common Mallow. SNG2: Along the southern part of the site, the grassland tends to be more species-rich and often associated with the curves and bends of the lake edge where they escape the frequent mowing regime. Present are frequent to occasional False Oat-grass, Perennial Rye-grass, Meadow Fescue, Smooth Meadow-grass, Yorkshire-fog, Cock's-foot, Red Fescue and Soft Brome. Herbs include locally frequent Perforate St. John's-wort, Square St. John's-wort, Meadow Buttercup, Common Knapweed, Agrimony, Prickly Sedge and Red Clover. The shorter mown grassland is similar the aforementioned SNG1 with the inclusion of Hairy Sedge, Meadow Buttercup, Common Mouse-ear, Common Bird's-foot Trefoil and Ground-ivy. SNG3: In the south west and western edge of the site the grassland here is left longer and the following grasses and herbs were noted. Grasses such as locally frequent Red Fescue and False Oat-grass, frequent Yorkshire-fog and Rough Meadow-grass, occasional Cock's-foot and Smooth Meadow-grass and rare Meadow Fescue. Herbs here include locally abundant Creeping Cinquefoil, locally frequent Common Knapweed, Ground-ivy, occasional Ribwort Plantain, Creeping Buttercup, Cut-leaved Crane's-bill, Cow Parsley, rare Yarrow, Common Vetch, Oxeye Daisy, Lesser trefoil, Hogweed, Germander Speedwell, Spear Thistle and Wild Teasel. SNG4: Along the edge of the Thames to the east of the site, the vegetation is left long and unmown with frequent Perennial Rye-grass, False Oat-grass, Rough Meadow-grass, occasional Cock's-foot, Yorkshire-fog, locally frequent patches of Red Fescue and rare Common Couch with herbs such as occasional White Clover, Common Ragwort, and rare Ribwort Plantain and Prickly Sow-thistle. SNG5: The sailing club area, including the club house, car parking and boat storage area comprises mown and geese grazed grassland with Perennial Rye-grass, Yarrow, Ribwort Plantain, Cut-leaved Crane's-bill and Daisy. Here there are also grassy banks in the north east, heavily grazed by geese producing a short grassland vegetation including Slender Trefoil, Daisy, Ribwort Plantain, Dove's-foot Crane's-bill, Lesser Trefoil and Creeping Cinquefoil. Towards the River Thames there are longer areas of vegetation such as Hard Rush Creeping Thistle and Silverweed.
Tall ruderal vegetation	TR1-TR3	1 & 7	TR1: Approximately 1m high vegetation in the north west corner of the site comprising locally frequent Common Nettle, Cleavers, Hogweed and thick Bramble patches, with shorter vegetation around the edges such as locally frequent Perennial Rye-grass, Wall Barley,



			Cock's-foot, Yorkshire-fog, Barren Brome, Common Knapweed, Broad-leaved Dock, occasional Ribwort Plantain and rare Goat's-beard, Cut-leaved Crane's-bill and Cat's-ear. Unmapped due to linear nature, see BW1: The lake is lined with mature well established woodland with a tall ruderal vegetation element. The tall vegetation comprises frequent to occasional Bramble, Hogweed, Cleavers, Common Nettle, Hedge Bindweed, Hemlock Water-dropwort, Greater Willowherb, Wood Dock, Common Ivy, Spear Thistle and Cock's-foot. Unmapped due to linear nature, see MV1: Whilst a lot of the tall ruderal vegetation makes up part of the lake woodland edge mosaic, there are areas where the woodland canopy is not so dense, for example in the north west edge of the site and here the vegetation flourishes with Greater Willowherb, Hemlock Water-dropwort, occasional Cleavers, rare Wild Teasel, Hemlock, small Osier trees, Cut-leaved Crane's-bill, Soft Brome, Lesser Burdock, Wood Aven, Creeping Thistle, Ground-ivy, Bramble, Rough Meadow-grass and Cock's-foot. TR2: There is a strip of unmown tall ruderal species between the main part of the site and the sailing club area (with a chain link fence) and this allows Hemlock, Common Nettle, Cleavers to thrive, with occasional Ground-ivy, White Dead-nettle, Welled Thistle, Prickly Sow-thistle, Creeping Cinquefoil, Rough Meadow-grass and locally dominant Common Nettle patches. Unmapped due to linear nature, see BW5: To the north of the site close to the sailing club and the Thames backwater, next to the wooded area and edge of track is tall ruderal vegetation including locally frequent Hemlock, Welled Thistle with occasional Prickly Sow-thistle, Common Nettle, Cleavers and Common Ivy on the edges. TR3: On the edge of the Thames (merging into marginal vegetation) is Greater Willowherb, Yellow Iris, Himalayan Balsam, Creeping Thistle, Common Nettle, Tansy, Osier, Hop, Welled Thistle, Cleavers, Spear Thistle, Bristly Oxtongue, False Oat-grass, Soft Rush and rare Prickly Sedge.
Standing open water	SWT1	5	SW1: The lake has little visible floating or submerged vegetation there are some occasional patches of Yellow and White Water-lily. Nuttall's Waterweed is also present.
Marginal (and emergent) vegetation	MV1-MV3	4, 6, 8 & 12	MV1: Along the edge of the lake, where it is more open, to the north and east are patches of locally frequent Yellow Iris, Greater Willowherb, Gipsywort, Hard Rush, Water Mint, Reedmace, Bittersweet, Water Forget-me-not, Amphisbious Bistort, Hemlock Water-dropwort, Water Figwort, Curled Dock and Purple Loosestrife. In the north west the canopy is less



			frequent and the emergent fringe is sparse and tight to the bank with occasional small stands of Reedmace, Common Club-rush and Yellow Iris with Water Mint and Water forget-me-not. MV2: Along the northern edge of the site, by the Thames backwater the emergent vegetation comprises Yellow Iris, Pendulous Sedge, Meadowsweet, Remote Sedge, Hemlock Water-dropwort, Greater Willowherb, Water Figwort, Hop, Floating Pennywort, Reed Sweet-grass and Amphibious Bistort. MV3: Small scattered coppiced trees line the edge of the north east part of the lake with Osier, Rusty Willow, Goat Willow and Aspen. Given the open nature of this area the marginal vegetation is dense with locally frequent Lesser Pond-sedge, Amphibious Bistort, Water Mint, Gipsywort and Water Forget-me-not.
Bare Ground			Area of bare ground used frequently by the sailing club for parking and other activities.
Hard standing and buildings		13	This represents the sailing club building and associated spillways, jetties and the track from Ferris Lane to the club.
Target Notes	TN1 - TN4		TN1: Bee hives. TN2: Previous location for Celery-leaved Buttercup, Water Chickweed and Skullcap found in the 1996 survey on the edge of the Thames backwater on the northern edge of the site. They were not seen on 2019. TN3: Previous location for Meadow Crane's-bill and Meadow Barley, recorded in the north west part of the site in 1996, but not re-found in 2019. TN4: Previous location for Fringed Water-lily, a plant of lowland lakes and slow flowing rivers but its native range has been obscured by both deliberate introductions and spread from cultivated stock. It is accepted as native in the Thames Valley, where it has decreased at its native sites. At Ferris Meadows, the 2019 survey did not re-locate a population. It is possible it was missed and that the population has contracted over the years due to shading, making it more difficult to spot.

3.2.5 Evidence of the following fauna species were recorded:

- Parakeet, Crow, Blackbird, Canadian Goose, Coot, Moorhen, Blackcap, Blue Tit, Wren, Grey Heron and Buzzard. As well as Orange-tip and Banded Demoiselle.

4 Site Evaluation

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

4.1.1 The site was originally selected in 1996 as '*This wetland habitat supports typical plants including Fringed Water-lily, a county rarity. It also supports important number of wintering wildfowl and summer breeding birds.*'

4.1.2 The site still supports wetland habitat. It may still support a population of Fringed Water-lily and it is likely that wintering wildfowl and summer breeding birds use the site, but current status is unknown.

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

4.1.3 The site **meets** criteria number 8a and 9d of SNCI selection guidelines. The evidence is provided below.

- 8a *Any lake classified by the UK Lakes HAP joint steering group as Tier 1 or Tier 2 where not already covered by other designations.*
Reason: Meets eutrophic standing water HPI criteria, also part of a larger network of waterbodies in the area.
- 9d *Fens, mires, swamps and marshes (NVC as above) of between 0.25 and 2ha where they form part of a wider habitat mosaic.*
- Reason: Although a full NVC survey was not undertaken, it is likely that the emergent and marginal vegetation around the lake edge would qualify including M7 and M28.

And

4.1.4 The site **nearly meets** the 4b SNCI selection guidelines under the following criteria;

- 4b *Grassland sites which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which support 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.*
Reason: The site supports in total 13 Grassland Indicators of which one is in bold.

And

4.1.5 The site **may meet** the 21c, 24c and 24d SNCI selection guidelines under the following criteria;

- 21 c *Supports a breeding bird assemblage or wintering waterbird assemblage of county importance.*

5.3 Reason: This site was important for its bird population in the 1996 SNCI reason for selection, but the current status is unknown. The woodland and mature trees and areas of scrub are known to support summer breeding birds and the lake houses a variety of wintering wildfowl. Although not part of the South West London Special Protection Area (SPA), the survey area is part of the network of sites which the SPA birds (Gadwall and Shoveler) use for roosting and feeding. Ferris Meadow is approximately 4km from the nearest SPA and studies have shown that additional site

like Ferris Meadows are essential to help protect overwintering bird populations, particularly Gadwell, Shoveler, Great Crested Grebe and Smew.

- 24 c Supports a nationally scarce plant species & 24 d supports species identified by Surrey Botanical Society as rare and notable within Surrey.

Reason: Fringed Water-lily was seen in 1996 and again in 2008. But it was not seen in 2019. It is possible that it was missed, if the population has diminished over time.

Supporting features

4.1.6 The SNCI selection guidelines (Surrey Wildlife Trust, 2008) state that “*sites that are close to, but do not quite meet the detailed habitat and species guidelines ... may be considered for selection where they are judged as important using the general guidelines*” which are based on the Ratcliffe Criteria (Ratcliffe, 1977). Appendix 5 shows an assessment of the site against the general guidelines.

4.1.1 Under the general guidelines based on the Ratcliffe Criteria (Ratcliffe, 1977), the site is particularly important for its position in ecological unit and connectivity with the landscape. The site falls within a network of similar sites and is well connected to other similar habitats. It also falls in the TV04 BOA Thorpe and Shepperton and next to R06 BOA River Thames – main river.

Site condition (surveyor’s opinion)

4.1.2 **Favourable, some decline**

4.1.3 There is no great loss or change to the habitat and management has stayed similar in the last 10-20 years, however there is some degradation of the grassland as it is being mown frequently and the clippings appear to be left on. Some of the aquatic plant species were not re-recorded this year, this could indicate a downward trend, or they are in very low numbers and missed.

Boundaries

4.1.4 No boundary changes are recommended.

Additional information or surveys required

4.1.5 One of the reasons for selection in 1996 as an SNCI was for its wintering wildfowl and summer breeding birds. There is no current, up to date information for this and it would be useful in order to evaluation the site.

5 Site Management Recommendations

5.1.1 The site is mown regularly in order to allow access for fishing community, however the clippings do not appear to be being collected and this is negatively affecting the species-richness of the 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.

5.1.2 The lakeside and riverside trees in part are being coppiced and pollarded and this is creating a wide variety of scrub and tree habitat for birds, it is also enhancing their longevity. However some other areas of the lake are a little too shaded and would also benefit from some coppicing/pollarding which would enhance the aquatic and marginal

vegetation on the edge of the lake. In order to encourage a more developed fringe vegetation around the lake generally it will be necessary to reduce the amount of shading.

- 5.1.3 Some of the willows along the east bank could be coppiced as this has obviously been done in the past. However, these are well used by Sedge Warblers so some dense scrub should be left undisturbed. It would be preferable to expand areas which are currently less shaded and where there is already some emergent vegetation, which can colonise the newly opened areas.
- 5.1.4 In order to encourage the spread of Fringed Water-lily (if still present) the canopy and bankside scrub should be further opened around BW1 and MV1. It might be advisable to make this area inaccessible to fishermen and boats in order to avoid disturbance to the present community.
- 5.1.5 Other open areas should be created where the Fringed Water-lily has been recorded in the past; particularly the north and western edges. Many of the willows in these areas are large, particularly the White Willow, and could be pollarded. Fringed Water-lily reproduces vegetatively from rhizomatous spread or fragmentation of the stems, and also produces seeds which are thought to remain dormant in a persistent seed bank, though they require a period of cold before germination. If it still persists in the substrate in areas where it was previously, it may regenerate if the tree and shrub canopy is cut back to allow light to reach the bottom of the lake. This should ideally be done in south facing.
- 5.1.6 It is unfortunate that there are three aquatic non-native invasive species on the site (on the Schedule 9 list), that being Nuttall's Waterweed, Floating Pennywort and Himalayan Balsam. They are well established and tricky to remove. Consideration should go towards their future management.
- 5.1.7 For example the Himalayan Balsam 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.
- 5.1.8 The presence of decaying wood within woodland is very important for a range of species, particularly fungi, invertebrates and mammals such as bats. A mixture of standing and fallen deadwood is important as they provide different conditions and support different species. Only fell dead trees where necessary for health and safety reasons and if possible only remove the dangerous branches rather than the whole tree.
- 5.1.9 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.
- 5.1.10 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.

- 5.1.11 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.

6 Potential grant aid

- 6.1.1 Natural England's Magic Interactive Mapping website (<http://magic.defra.gov.uk/>) suggests that the site is not currently covered by an Environmental Stewardship, Woodland Grant Scheme or Countryside Stewardship grant.

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8 Appendix 1: Vascular plant species recorded during Phase 1 habitat survey

Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Acer platanoides</i>	Norway Maple	R				
<i>Acer psudeoplatanus</i>	Sycamore	R/LF				SWT 2012
<i>Achillea millefolium</i>	Yarrow	R				
<i>Acorus calamus</i>	Sweet-flag	R				
<i>Aegopodium podagraria</i>	Ground-elder	R				
<i>Aesculus hippocastanum</i>	Horse-chestnut	R				
<i>Agrimonia eupatoria</i>	Agrimony	R				
<i>Agrostis capillaris</i>	Common Bent	R				
<i>Agrostis stolonifera</i>	Creeping Bent	R/LA				
<i>Alliaria petiolate</i>	Garlic Mustard	R				
<i>Alnus glutinosa</i>	Alder	R				
<i>Alopecurus pratensis</i>	Meadow Foxtail	R				
<i>Angelica sylvestris</i>	Wild Angelica	R	GI/AX			
<i>Anisantha sterilis</i>	Barren Brome	R/LF				
<i>Anthriscus sylvestris</i>	Cow Parsley	R/LF				
<i>Arctium minus</i>	Lesser Burdock	R				
<i>Arrhenatherum elatius</i>	False-oat Grass	R				

Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Artemisia vulgaris</i>	Mugwort	R				
<i>Arum maculatum</i>	Lords-and-ladies	R				
<i>Ballota nigra</i> ssp. <i>meridionalis</i>	Black Horehound	R				
<i>Bellis perennis</i>	Daisy	LF				
<i>Brachypodium sylvaticum</i>	Wood False-brome	R				
<i>Brassica napus</i> agg.	Rape	R				
<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	R				
<i>Buddleja davidii</i>	Butterfly-bush	R				Plantlife
<i>Calystegia sepium</i>	Hedge Bindweed	R				
<i>Calystegia sylvatica</i>	Great Bindweed	R				
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	R				
<i>Cardamine flexuosa</i>	Wavy Bittercress	R				
<i>Carduus crispus</i> ssp. <i>multiflorus</i>	Wetted Thistle	R/LF				
<i>Carex acutiformis</i>	Lesser Pond-sedge	R	GI/AX			
<i>Carex hirta</i>	Hairy Sedge	R				
<i>Carex pendula</i>	Pendulous Sedge	R	AX	AWI		
<i>Carex remota</i>	Remote Sedge	R	AX	AWI		

Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Carex riparia</i>	Great Pond-sedge	R	GI (bold)			
<i>Carex spicata</i>	Spiked Sedge	R	GI			
<i>Centaurea nigra</i> agg.	Common Knapweed	R				
<i>Cerastium glomeratum</i>	Sticky Mouse-ear	R				
<i>Cirsium arvense</i>	Creeping Thistle	R/LF				
<i>Cirsium vulgare</i>	Spear Thistle	R				
<i>Clematis vitalba</i>	Travellers-joy	R				
<i>Conium maculatum</i>	Hemlock	R				
<i>Convolvulus arvensis</i> ssp. <i>arvensis</i>	Field Bindweed	R				
<i>Cornus sanguinea</i>	Dogwood	R				
<i>Cornus sericea</i> agg	Red Dogwood	R				
<i>Crataegus monogyna</i>	Hawthorn	R				
<i>Crepis vesicaria</i> ssp <i>taraxacifolia</i>	Beaked Hawk's-beard	R				
<i>Dactylis glomerata</i>	Cock's-foot	O				
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	R				
<i>Dipacus fullonum</i>	Wild Teasel	R				
<i>Elodea nuttalli</i>	Nuttall's Waterweed	R				Schedule 9

Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Elymus repens</i>	Common Couch	R				
<i>Epilobium hirsutum</i>	Great Willowherb	R/LA				
<i>Epilobium parviflora</i>	Hairy Willowherb	R				
<i>Epilobium tetragonum</i>	Square-stalked Willowherb	R	GI			
<i>Equisetum arvense</i>	Field Horsetail	R				
<i>Euphorbia pepjis</i>	Petty Spurge	R				
<i>Schedonorus pratensis</i>	Meadow Fescue	R	GI/AX			
<i>Festuca rubra</i>	Red Fescue	R/LF				
<i>Filipendula ulmaria</i>	Meadowsweet	R	GI			
<i>Fraxinus excelsior</i>	Ash	LF				
<i>Galega officinalis</i>	Goat's-rue	R				??
<i>Galium aparine</i>	Cleavers	O/LA				
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	O/LA				
<i>Geranium molle</i>	Dove's-foot Crane's-bill	R				
<i>Geranium robertianum</i> ssp. <i>robertianum</i>	Herb-Robert	R				
<i>Geum urbanum</i>	Wood Avens	R/LF				
<i>Glechoma hederacea</i>	Ground-ivy	R/LF				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Glyceria fluitans</i>	Floating Sweet-grass	R				
<i>Glyceria maxima</i>	Reed Sweet-grass	R				
<i>Hedera 'hibernica'</i>	Irish Ivy	R				
<i>Hedera helix</i>	Common Ivy	R/LF				
<i>Helminthotheca echioides</i>	Bristly Ox-tongue	R				
<i>Heracleum sphondylium</i>	Hogweed	O				
<i>Holcus lanatus</i>	Yorkshire-fog	O/LF				
<i>Hordeum murinum</i>	Wall Barley	R				
<i>Humulus lupulus</i>	Hop	R/LF				
<i>Hydrocotyle ranunculoides</i>	Floating Pennywort	R/LF				Schedule 9
<i>Hypericum perforatum</i>	Perforate St. John's-wort	R				
<i>Hypochaeris radicata</i>	Cat's-ear	R				
<i>Impatiens glandulifera</i>	Himalayan Balsam	R/LA				Schedule 9
<i>Iris foetidissima</i>	Stinking Iris	R		AWI		
<i>Iris pseudacorus</i>	Yellow Iris	R				
<i>Jacobaea vulgaris</i>	Common Ragwort	R				
<i>Juncus bufonius</i>	Toad Rush	R				
<i>Juncus effusus</i>	Soft Rush	R				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Juncus inflexus</i>	Hard Rush	R				
<i>Lactuca serriola</i>	Prickly Lettuce	R				
<i>Lamium album</i>	White Dead-nettle	R				
<i>Lamium purpurium</i>	Red Dead-nettle	R				
<i>Lapsana communis</i>	Nipplewort	R				
<i>Lemna minor</i>	Common Duckweed	R				
<i>Leucanthemum vulgare</i>	Oxeye Daisy	R	GI			
<i>Lolium perenne</i>	Perennial Rye-grass	F				
<i>Lotus corniculatus</i>	Common Bird's-foot Trefoil	R	GI			
<i>Lycopus europaeus</i>	Gipsywort	R				
<i>Lysimachia vulgaris</i>	Yellow Loosestrife	R				
<i>Lythrum salicaria</i>	Purple-loosestrife	R				
<i>Malus sp.</i>	An apple sp.	R				
<i>Malva sylvestris</i>	Crab Apple	R	AX	AWI		
<i>Matricaria discoidea</i>	Pineappleweed	R				
<i>Medicago lupulina</i>	Black Medick	R				
<i>Mentha aquatic</i>	Water Mint	R				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Myosotis scorpioides</i>	Water Forget-me-not	R	AX			
<i>Narcissus</i> sp.	A garden daffodil	R				
<i>Nuphar lutea</i>	Yellow Water-lily	R				
<i>Nymphaea alba</i>	White Water-lily	R	AX			
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	R/LF				
<i>Pentaglottis sempervirens</i>	Green Alkanet	R/LF				
<i>Persicaria amphibia</i>	Amphibious Bistort	R				
<i>Persicaria maculosa</i>	Redshank	R				
<i>Phalaris arundinacea</i>	Reed Canary-grass	R				
<i>Plantago lanceolata</i>	Ribwort Plantain	O/LF				
<i>Plantago major</i>	Greater Plantain	R				
<i>Platanus x acerifolia</i>	London Plane	R				
<i>Poa annua</i>	Annual Meadow-grass	R/LF				
<i>Poa pratensis</i>	Smooth Meadow-grass	R	GI/AX			
<i>Poa trivialis</i>	Rough Meadow-grass	F				
<i>Populus nigra</i> 'Italica'	Lombardy Poplar	LF				
<i>Polygonum aviculare</i> agg	Knotgrass	R				
<i>Populus tremula</i>	Aspen	R	AX	AWI		



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Populus x Canadensis</i>	Hybrid Black Poplar	R/LF				
<i>Populus x canescens</i>	Grey Poplar	R				
<i>Potentilla anserine</i>	Silverweed	R				
<i>Potentilla reptans</i>	Creeping Cinquefoil	R				
<i>Prunella vulgaris</i>	Self-heal	R				
<i>Prunus lusitanica</i>	Portugal Laurel	R				
<i>Prunus pissardii</i>	Cherry Plum	R				
<i>Pulicaria dysenterica</i>	Common Fleabane	R				
<i>Purnus avium</i>	Wild Cherry	R	AX	AWI		
<i>Quercus robur</i>	Pendunculate Oak	R/LF				
<i>Ranunculus acris ssp acris</i>	Meadow Buttercup	R				
<i>Ranunculus repens</i>	Creeping Buttercup	R				
<i>Ribes rubrum</i>	Red Currant	R	AX	AWI		
<i>Rosa canina agg.</i>	Dog Rose	R				
<i>Rubus armeniacus</i>	Himalayan Bramble	R				
<i>Rubus fruticosus agg.</i>	Bramble	O/LA				
<i>Rumex conglomeratus</i>	Clustered Dock	R				
<i>Rumex crispus spp crispus</i>	Curled Dock	R				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R				
<i>Rumex sanguineus var viridis</i>	Wood Dock	R				
<i>Salix alba</i>	White Willow	R				
<i>Salix caprea ssp carpea</i>	Goat Willow	R				
<i>Salix cinerea ssp oleifolia</i>	Rusty Willow	R				
<i>Salix fragilis</i>	Crack Willow	O/LF				
<i>Salix viminalis</i>	Osier	R				
<i>Salix x sepulcralis</i>	Weeping Willow	R				
<i>Sambucus nigra</i>	Elder	R				
<i>Schoenoplectus lacustris</i>	Common Club-rush	R	AX			
<i>Scrophularia auriculata</i>	Water Figwort	R				
<i>Senecio vulgaris</i>	Groundsel	R				
<i>Silene dioica</i>	Red Campion	R				
<i>Solanum dulcamara spp. dulcamara</i>	Bittersweet	R				
<i>Solanum nigrum</i>	Black Nightshade	R				
<i>Sonchus asper</i>	Prickly Sow-thistle	R				
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Stachys sylvatica</i>	Hedge Woundwort	R				
<i>Stellaria media</i> agg.	Chickweed	R				
<i>Symphytum officinalis</i>	Common Comfrey	R				
<i>Tanacetum vulgare</i>	Tansy	R	GI			
<i>Taraxacum officinale</i> agg.	Dandelion	R				
<i>Taxus baccata</i>	Yew	R				
<i>Tilia x vulgaris</i>	Common Lime	R				
<i>Tragopodon pratensis</i>	Goat's-beard	R	GI			
<i>Trifolium dubium</i>	Lesser Trefoil	R				
<i>Trifolium micranthum</i>	Slender Trefoil	R	GI			
<i>Trifolium pratense</i>	Red Clover	R				
<i>Trifolium repens</i>	White Clover	R				
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	R				
<i>Typha latifolia</i>	Bulrush	R				
<i>Urtica dioica</i>	Common Nettle	O/LA				
<i>Veronica chamaedrys</i>	Germander Speedwell	R				
<i>Veronica filiformis</i>	Slender Speedwell	R				



Scientific name	Common name	Site abundance (DAFOR)	*Indicator Species	**AWI	***County Notable	****Invasive species
<i>Veronica persica</i>	Common Field Speedwell	R				
<i>Vicia cracca</i>	Tufted Vetch	R				
<i>Vicia sativa</i>	Common Vetch	R				
<i>Vicia sepium</i>	Bush Vetch	R	AX	AWI		
		Total 179	GI=13 (1 bold) AX=13	AWI=9	Notable=0	Invasives=5

*Species typical of grassland of conservation interest in Surrey as listed in Guidance for the Selection of SNCIs in Surrey (SWT, 2008). The number of bold species within this list should also be noted separately. Bold species are those shown in bold on Table 1 within the Guidance for the Selection of SNCIs in Surrey (SWT, 2008). Axiophytes of Surrey 'worthy plants' indicating good habitats

**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 Surrey Rare Plant Register (Sankey, 2019))

****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).

9 Appendix 2: Additional vascular plant species of interest recorded on the site in previous surveys

Scientific name	Common name	*Indicator Species	**AWI	***County Notable	****Invasive species	Date of record / Recorder
<i>Alisma plantago-aquatica</i>	Water-plantain	GI/AX				Davenport I 1996
<i>Alopecurus geniculatus</i>	Marsh Foxtail	GI/AX				Davenport I 1996
<i>Equisetum fluvitiles</i>	Water Horsetail	GI/AX				Cooper S 2008
<i>Galium verum</i>	Ladies Bedstraw	GI/AX				Davenport I 1996
<i>Geranium pratense</i>	Meadow Crane's-bill	GI/AX (bold)				Davenport I 1996
<i>Hordeum secalinum</i>	Meadow Barley	GI (bold)				Davenport I 1996
<i>Hypericum perforatum</i>	Imperforate St. John's-wort	GI				Cooper S 2008
<i>Lathyrus pratensis</i>	Meadow Vetchling	GI				Davenport I 1996
<i>Nymphoides peltata</i>	Fringed Water-lily			British Scarce/VC17 Scarce (possible native)		Davenport I 1996 Cooper S 2008
<i>Rnaunculus sceleratus</i>	Celery-leaved Buttercup	GI (bold)				Davenport I 1996
<i>Rorippa amphibia</i>	Great Yellow-cress	GI/AX (bold)				Davenport I 1996
<i>Scutellaria galericulata</i>	Skullcap	GI/AX				Davenport I 1996
<i>Stachys palustris</i>	Marsh Woundwort	GI/AX				Davenport I 1996
<i>Stellaria aquatica</i>	Water Chickweed	GI/AX				Davenport I 1996
		GI=13 (4 bold)	AWI=0	Notable=1	Invasive=0	

*Species typical of grassland of conservation interest in Surrey (as listed in Guidance for the Selection of SNCIs in Surrey, May 2008). The number of bold species within this list should also be noted separately. Bold species are those shown in bold on Table 1 within the Guidance for the Selection of SNCIs in Surrey (SWT, 2008). Axiophytes of Surrey 'worthy plants' indicating good habitats.

**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 Surrey Rare Plant Register (Sankey, 2019))

****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)

10 Appendix 3: A review of the site against the Guidance for the Selection of SNCIs in Surrey (Surrey Wildlife Trust, 2008) – Habitat Guidelines

Habitat	Notes	Result
1) Woodland		
a) All sites containing over 5ha of ancient semi-natural woodland (ASNW).	Woodland is present, but not of ancient origin.	Criteria not met.
b) Other ancient woodland including plantations on ancient woodland sites where there is a significant element of the original semi-natural woodland surviving.	As above.	Criteria not met.
c) Areas of woodland which are not themselves ancient but which are immediately adjacent to ancient woodland sites should also be considered for selection.	Woodland present, but does not connect to ancient woodland.	Criteria not met.
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	Woodland on the edge of the lake, but not classed as wet woodland	Criteria not met.
f) Lowland Beech, Yew and Box Woodland falling within NVC types; W12, W13, W14 and W15	Not present.	Criteria not met.
g) Wealden gill woodland	Not present.	Criteria not met.
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		



Habitat	Notes	Result
a) Wood pasture and parkland over 2ha which can demonstrate 3 or more of the features defined in the selection guidelines (Surrey Wildlife Trust, 2008) should be considered for selection.	Not present.	Criteria not met.
b) Groups of 3 or more ancient or veteran trees as defined in the selection guidelines (Surrey Wildlife Trust, 2008) within 0.25ha.	Not present.	Criteria not met.
c) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
3) Traditional Orchards		
a) Traditionally managed orchards of biodiversity value, as defined in the selection guidelines (Surrey Wildlife Trust, 2008).	Not present.	Criteria not met.
b) Sites which 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.	A full NVC survey was not undertaken, however in the opinion of the surveyor it is unlikely that these NVC categories are present on the site. They are more likely to conform to MG1 and MG6.	Criteria not met.
b) Grassland sites which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which support 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.	The site supports in total 13 Grassland Indicators of which one is in bold. This criterion is nearly satisfied.	Criteria is nearly met.

Habitat	Notes	Result
c) Sites which 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 communities; U1, U2, U3, U4 or U20a.	Not present.	Criteria not met.
b) Grassland sites which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which support 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.	Not present.	Criteria not met.
c) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
6) Calcareous Grassland		
a) All sites supporting the following NVC communities: CG2, CG3, CG4, CG5, CG6 or CG7.	Not present.	Criteria not met.
b) Grassland sites which support a high diversity of species typical of grassland of conservation interest in Surrey. As a guideline, sites which support 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.	Not present.	Criteria not met.
c) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
7) Heathland		

Habitat	Notes	Result
a) All areas of heathland vegetation; including matrices of dwarf shrub, bare ground, grassland, valley mires and scrub should be considered. Heathland over 2ha would automatically qualify.	Not present.	Criteria not met.
b) Areas of heathland which are heavily afforested or have succeeded to mature woodland with potential to be restored to heathland and either; • retain sufficient remnants of heathland or • are contiguous with, or form an integral part of an area of heathland.	Not present.	Criteria not met.
c) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
8) Standing open water		
a) Any lake classified by the UK Lakes HAP joint steering group as Tier 1 or Tier 2 where not already covered by other designations.	Meets eutrophic standing water HPI criteria. Also part of a larger network of waterbodies in the area.	Criteria met.
b) Ponds which qualify under the criteria for UK BAP priority habitat.	Lake is present but is likely not to qualify under the HPI guidelines.	Criteria not met.
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		

Habitat	Notes	Result
a) All reedbeds over 2ha.	Not present.	Criteria not met.
b) Reedbeds of between 0.25 and 2ha where they form part of a wider habitat mosaic.	Not present.	Criteria not met.
c) Fens, mires, swamps and marshes over 2ha with flora characteristic of the following NVC 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.	Not present.	Criteria not met.
d) Fens, mires, swamps and marshes (NVC as above) of between 0.25 and 2ha where they form part of a wider habitat mosaic.	Although a full NVC survey was not undertaken, it is likely that the emergent and marginal vegetation around the lake edge would qualify including M7 and M28.	Criteria met.
e) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
10) Floodplain Grazing Marsh		
a) All floodplain grazing marsh over 5ha that is not designated as SSSI.	Not present.	Criteria not met.
b) Floodplain grazing marsh of less than 5ha where it forms part of a wider habitat mosaic of water-dependent habitats, or where it links SSSIs.	Not present.	Criteria not met.
c) Sites which support a significant population of a species as discussed in the species guidance.	See Appendix 2	
11) Rivers, Canals and Streams		

Habitat	Notes	Result
a) Chalk stream.	Not present.	Criteria not met.
b) River classed by the Environment Agency as Grade A within the GQA.	Not present.	Criteria not met.
c) River with a HMS of 0 (classified as "pristine" by RHS).	Not present.	Criteria not met.
d) River with a conservation evaluation of either "Critical" or "Important" within strategic RCS.	Not present.	Criteria not met.
e) River which supports viable populations or spawning sites of animals listed in guidelines.	Not present.	Criteria not met.
f) Sites which 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; • 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	Not present.	Criteria not met.
b) Sites which 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.	Criteria not met.

Habitat	Notes	Result
b) Supports a significant population of a species as discussed in the species guidance.	See Appendix 2	
14) Scrub Communities <i>When selecting sites based on other habitats all areas of associated scrub should be identified and included within the SNCI boundary.</i>		N/A
15) Community and access a) Sites which serve as Accessible Natural Greenspace within urban areas. <i>Sites which are close to but do not fully meet the habitat or species guidelines may be considered for selection if they meet this criteria.</i>	Not present.	Criteria not met.
16) Geology and Geomorphology RIGS regarded as the geological equivalent of SNCIs.	Not present.	Criteria not met.

11 Appendix 4: A review of the site against the Guidance for the Selection of SNCIs in Surrey (Surrey Wildlife Trust, 2008) – Species Guidelines

Species	Notes	Result
17) Mammals		
Sites with known populations of:		
a) Dormouse	Habitat is unlikely to support Hazel Dormouse populations.	Criteria not met.
b) Water Vole	Sub-optimal habitat and Water Vole thought to be functionally extinct from Surrey.	Unlikely, unknown.
c) Otter	Otters have been seen in Surrey and connecting river systems recently, it is not known if they are in the vicinity of Ferris Meadows Lake.	Unknown, possible.
18) Mammals – Bats		
a) Contains a 'significant' bat breeding roost or hibernation site.	There is suitable habitat for bats, but it unlikely that an unknown significant bat breeding roost is present.	Unlikely, unknown.
b) Any breeding roost or hibernation site used by multiple bat species concurrently.	Suitable habitat is present, current status is unknown.	Unknown.
c) Foraging sites with more than 5 species recorded or used by Annex II species.	Suitable habitat is present, current status is unknown.	Unknown, possible.
19) Amphibians		
a) Supports populations of Natterjack Toad.	Suitable habitat is not present.	Not present.
b) Regularly record 'good' or 'exceptional' breeding populations of Great Crested Newt (GCN).	There is suitable habitat for GCN, but it unlikely that an unknown good or exceptional breeding population is present.	Unlikely, unknown.
c) Supports populations of four or more native amphibian species.	Suitable habitat is present, current status is unknown.	Unknown.

Species	Notes	Result
d) 'Exceptional' populations of any amphibian species.	Suitable habitat is present, current status is unknown.	Unknown.
e) 'Good' populations of 3 or more native amphibian species.	Suitable habitat is present, current status is unknown. Common Toad and Common Frog have been known to be present in the past.	Unknown.
20) Reptiles		
a) Supports populations of Smooth Snake or Sand Lizard.	Suitable habitat is not present.	Not present.
b) Populations of 3 or more native reptile species.	Suitable habitat for Slow-worm and Grass Snake are present, but the current status is unknown.	Unknown
c) 'Exceptional' population of a single reptile species or a 'good' population of Adders	Suitable habitat for Slow-worm and Grass Snake are present, but the current status is unknown.	Unknown
d) Assemblage of species scoring at least 4 points.	Suitable habitat for Slow-worm and Grass Snake are present, but the current status is unknown.	Unknown
21) Birds		
a) Holds more than 10% of Surrey's breeding or wintering population of a species.	Current status is unknown.	Unknown.
b) Supports species on the conservation concern list for Surrey categories 1-3.	Current status is unknown.	Unknown.

Species	Notes	Result
c) Supports a breeding bird assemblage or wintering waterbird assemblage of county importance.	This site was important for its bird population in the 1996 SNCI reason for selection, but the current status is unknown. The woodland and mature trees and areas of scrub are known to support summer breeding birds and the lake houses a variety of wintering wildfowl. Although not part of the South West London Special Protection Area (SPA), the survey area is part of the network of sites which the SPA birds (Gadwell and Shoveler) use for roosting and feeding. Ferris Meadows is approximately 4km from the nearest SPA and studies have shown that additional site like Ferris Meadows are essential to help protect overwintering bird populations, particularly Gadwell, Shoveler, Great Crested Grebe and Smew.	Currently unknown, possible.
22) Invertebrates		
a) Supports one or more nationally rare or declining species as listed in the latest national Red Data Books or lists.	The variety of habitats present are suitable for terrestrial and aquatic invertebrates, but the current status is unknown.	Unknown.
b) Supports an important assemblage or population(s) of a BAP priority species.	The variety of habitats present are suitable for terrestrial and aquatic invertebrates, but the current status is unknown.	Unknown.
c) Supports an important assemblage or population(s) of a nationally scarce species.	The variety of habitats present are suitable for terrestrial and aquatic invertebrates, but the current status is unknown.	Unknown.
23) Additional Invertebrate Guidelines		

Species	Notes	Result
a) Meet the British Dragonfly Society criteria for Key Dragonfly Sites	The variety of habitats present are suitable for aquatic invertebrates, but the current status is unknown.	Unknown, unlikely.
b) Supports a butterfly species within list A.	A variety of habitats are present suitable for butterflies, but the current status is unknown.	Unknown, unlikely.
c) Supports a locally notable population of four or more of the butterfly species within list B.	A variety of habitats are present suitable for butterflies, but the current status is unknown.	Unknown, unlikely.
d) Sites with a Species Quality Score of greater than 4 for Wasps, bees & Ants.	A variety of habitats are present suitable for terrestrial and aquatic invertebrates, but the current status is unknown.	Unknown, unlikely.
24) Vascular Plants		
a) Supports one or more species included in the latest national Red Data List for plants.	None present.	Criteria not met.
b) Supports an important assemblage or population(s) of a UK BAP priority species.	None present.	Criteria not met.
c) Supports a nationally scarce species.	Fringed Water-lily was seen in 1996 and again in 2008. But it was not seen in 2019. It is possible that it was missed, if the population has diminished over time.	Criteria not met, although this would change if the population is re-recorded.
d) Supports species identified by Surrey Botanical Society as rare and notable within Surrey.	Fringed Water-lily was seen in 1996 and again in 2008. But it was not seen in 2019. It is possible that it was missed, if the population has diminished over time.	Criteria not met, although this would change if the population is re-recorded.
e) Sites selected as Important Plant Areas by Plantlife.	Not selected.	Criteria not met.
25) Lower Plants & Fungi		

Species	Notes	Result
a) Supports one or more nationally rare or declining species as listed in the national Red Data Books.	Limited habitat present, status unknown.	Unknown, unlikely.
b) Supports an important assemblage or population(s) of UK BAP priority species.	Limited habitat present, status unknown.	Unknown, unlikely.
c) Supports a nationally scarce species.	Limited habitat present, status unknown.	Unknown, unlikely.
d) Sites classified as Important Fungus Areas by Plantlife.	Not classified.	Criteria not met.
e) Sites classified as Important Stonewort Areas by Plantlife.	Not classified.	Criteria not met.

12 Appendix 5: A review of the site against the Guidance for the Selection of SNCIs in Surrey (Surrey Wildlife Trust, 2008) – General Guidelines

12.1.1 Sites which are close to, but do not quite meet 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 scarce habitat types were recorded.
Diversity	The site is considered to be relatively botanically diverse given the species list total of 179, and the variety of habitats present.
Size	The site is approximately 18ha in size, this relatively small, but part of a wider set of waterbodies.
Naturalness	Accidentally introduced invasive non-native plant species are present
Typicalness	The habitat is fairly typical of the surrounding.
Fragility	If there were to be a pollution incident the lake would be negatively affected. If fertiliser were to be regularly added to the grassland then it would also be negatively affected. From this point of view the site is considered fragile.
Replacability	It would be difficult to recreate the grassland and the maturity of the lake.
Position in ecological unit / Connectivity with the landscape	The site falls within a network of similar sites and is well connected to other similar habitats. It also falls in the TV04 Biodiversity Opportunities Area (BOA) Thorpe and Shepperton.
Educational value and value for the appreciation of nature.	There is no public access to the site. The sailing club lies on the northern part of the site. It is not currently used for education purposes.
Potential value	Ensuring that the willows are coppiced or pollarded will retain the current importance of the trees for the site. The clippings of grassland should be remove. Non-native invasive plant species should be removed. Ideally the lake would not be disturbed or the disturbance regularly to minimal impact.
Recorded history and cultural associations	No known records pre-1996.

