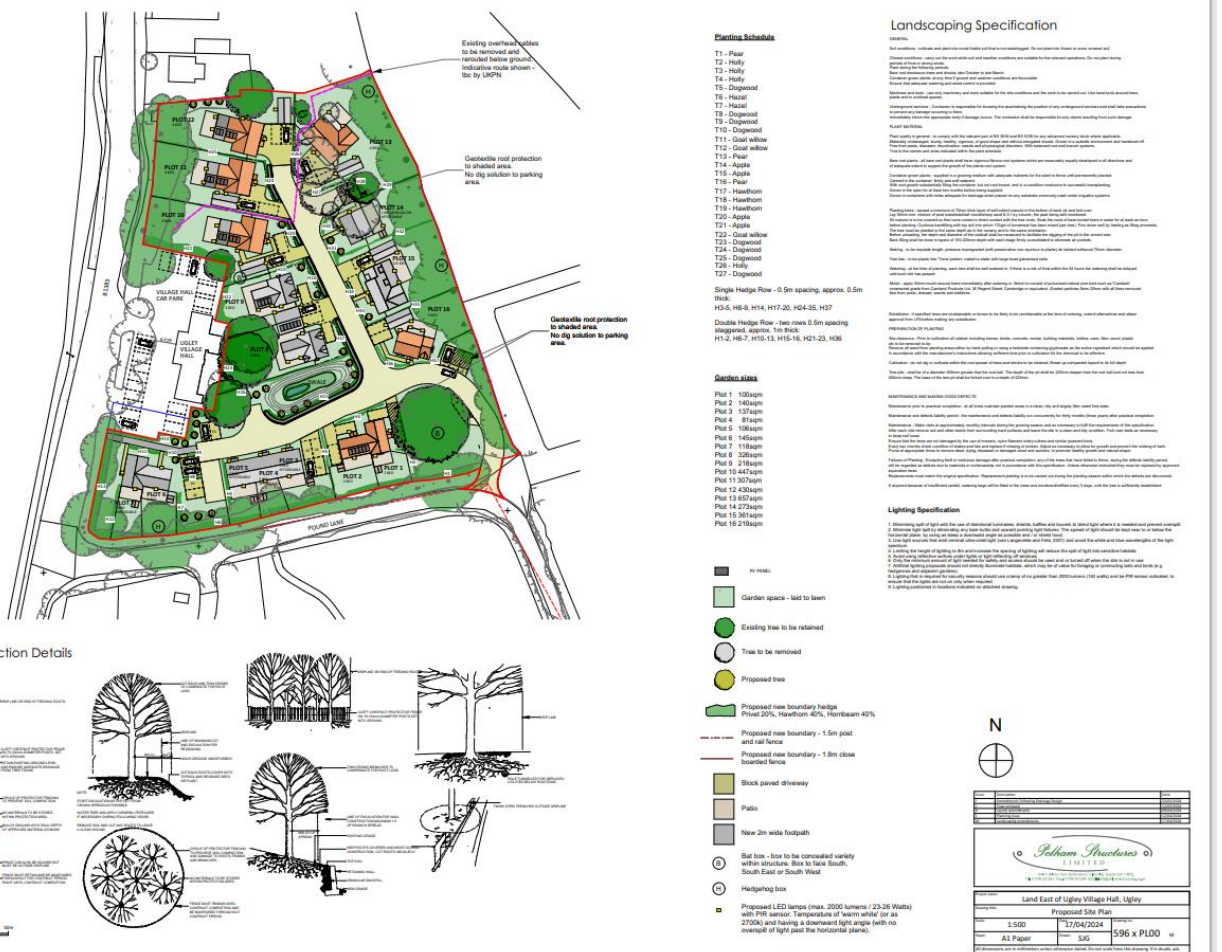


Ecology report for Land to the east of Ugley Village Hall.

1. Commissioned by Pelham Structures Ltd., Brice's Yard/Butts Green, Saffron Walden CB11 4RT. The site was initially visited on Sunday 11th June 2023. Further visits to survey were made on Saturday 5th and Monday 28th August 2023. Reptile survey on 7th, 12th, 15th, 18th, 21st, 25th, and 29th September 2023. 4 other occasions 30th October and 7th November 2023, 4th February 2024 Badger walk and 13th March 2024 for the G.T.L.A.
2. Planning application details



Metricated areas of proposed construction.

Total site = 10,785.5 sqm
Road and public footpath = 1,425.4
Houses and garages = 1,641.5
Patio and paths (on plot) = 430
Driveways = 955.1
Pond = area from first contour = 230.6 sqm, approx.. volume = 90 m3
Soft landscaping inc. grass etc = 6,112.9
New Native Hedges 730 metres
Open ditches 58.6 sqm
Sycamore Open Space 547 sqm

The application is for 16 off C3 dwellings including affordable units with garages, access roads and landscaping on the site of an old gravel pit. The superficial geology is Glaciofluvial Gravel. The application also includes a drainage feature, swale, that will retain a limited amount of permanent water in the centre. There are no existing buildings on the site. The Village Hall and car park are located immediately to the west of the application area.



Plan Ug 1

3. Location and site history

The application site lies due north of the westernmost end of Pound Lane, Ugley and immediately to the east of Ugley Village Hall. From the historic maps below, it would appear that in 1877 the whole area was agricultural. The map also indicates that there was an orchard on the south side of Pound Lane. The contours around the perimeter of the application area suggest that there was historic gravel extraction from the glaciofluvial

deposits. The historic maps only show a very small gravel pit in the southeast corner in 1897. Part of this pit remains by the entrance gate in 2024.



The Land Registry shows that the northeast section was previously owned by a neighbour to the north. It is unlikely that this area was subject to any historic gravel extraction.



Historic map record





1883



1897 the gravel extraction had just commenced in the southeast corner.



1898 ponds shown in blue. There appear to be no ponds shown either within the application red line or in the northeast quarter beyond Ugley Park.



1960 Remains as rough pasture. Village Hall appears to have been extended.



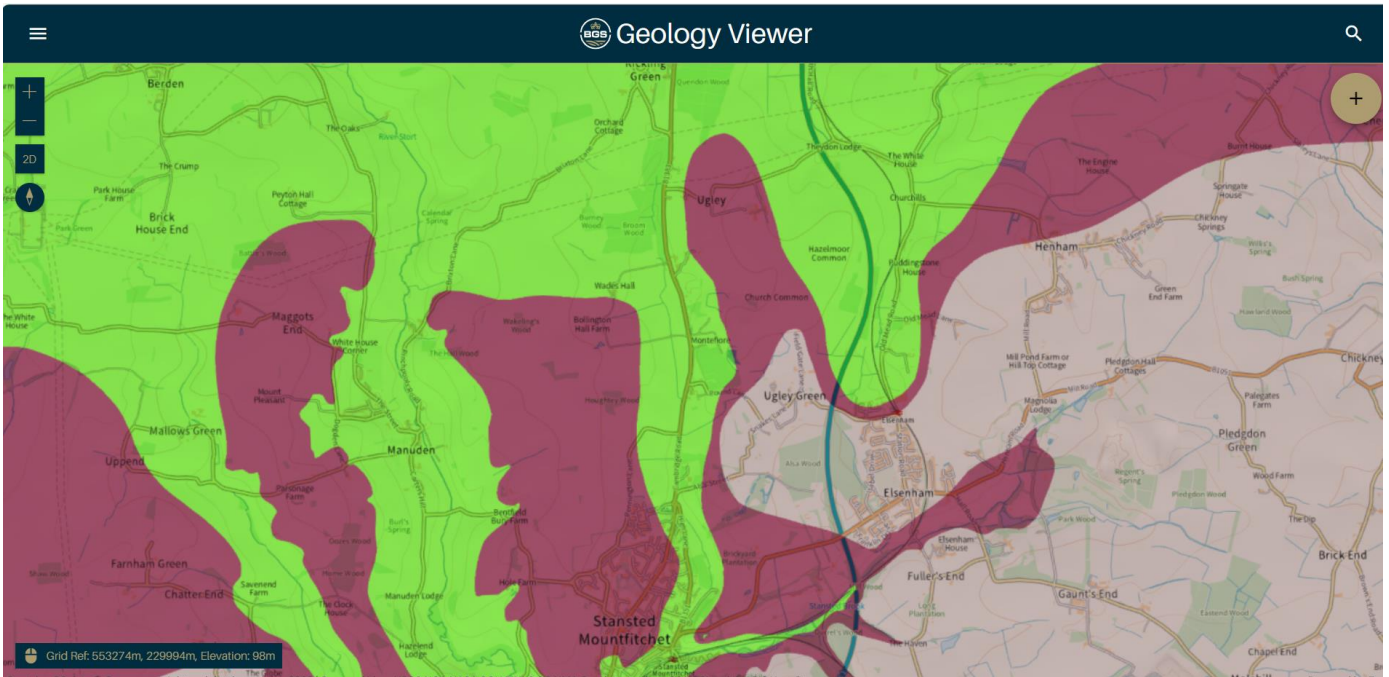
1966 No significant change from 1960

1. Grid reference: 551551, 227292.
2. Area 10,649.6 square metres. Perimeter 500 metres
3. Gradient

The application area slopes 2 metres from the east towards the west and the B1383, 91 metres ASL, (Above Sea Level), to 89 metres ASL. From north to south there is no great change from 90 metres ASL to 89 metres. As this site has a gravel bank around the perimeter the low point is around proposed Plot 5, 85 metres ASL. The swale again is sited in this lowest section of the application site, 86 metres ASL.

4. Geology

i. Solid geology

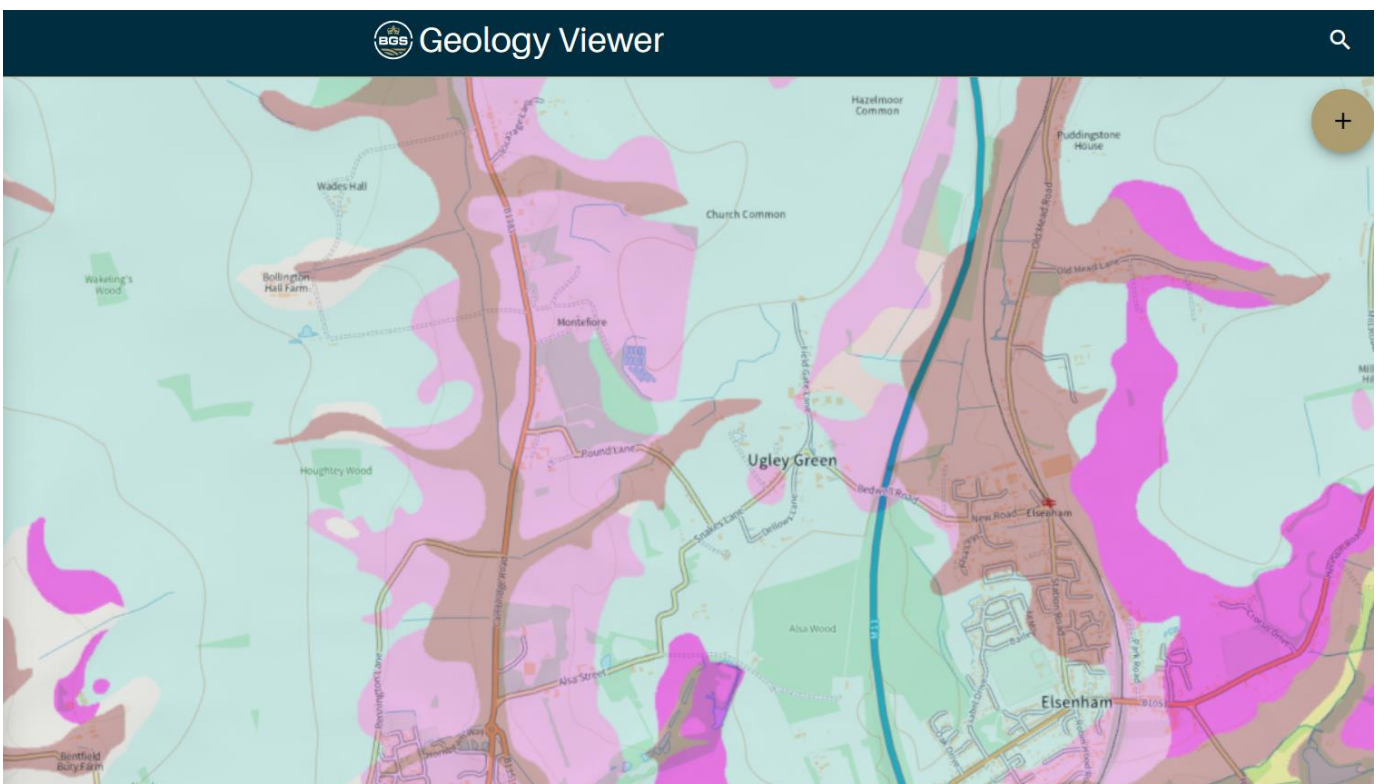


The entire site, i.e., Green, is on a deposit of Lewes Nodular Chalk and Seaford Chalk Formation but undifferentiated. These white Upper Chalk deposits were laid down in warm, shallow Cretaceous seas C. 84 to 94 Ma. This deposit becomes differentiated into two separate strata elsewhere in southern UK.

Purple, Thanet Formation and Lambeth Group - Clay, silt and sand. Sedimentary bedrock formed between 66 and 47.8 million years ago during the Palaeogene period.

Mauve, London Clay Formation - Clay, silt and sand. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period.

ii. Superficial geology



Glaciofluvial Deposits, Mid Pleistocene - Sand and gravel. Sedimentary superficial deposit formed between 860 and 116 thousand years ago during the Quaternary period.

Brown Head - Clay, silt, sand and gravel. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

Grey, Lowestoft Formation formerly known as Boulder Clay. Sedimentary superficial deposit formed between 480 and 423 thousand years ago during the Anglian glacial period.



The entire application site is located on the Glaciofluvial Gravel, e.g., deposited by torrents of water from above a retreating glacier and from pressurized water from below the glacier.

Contains British Geological Survey materials © UKRI 2024.

5. Hydrology

Nearest Main River

The nearest Environment Agency defined Main River begins at a point to the northwest of the application area; Grid reference: 551324, 227621, and flows south. It passes the west of Ugley Village Hall and lies 135 metres to the west of the application area. There appear to be no Ordinary Watercourses that drain from the application site into this Main River.

This river flows south until it is joined by the Stansted Brook from the east. The combined waterway flows in a south-westerly direction until it reaches Gypsy Lane to the southwest of Stansted, where it joins the River Stort. All three then continue to flow in a southerly direction.

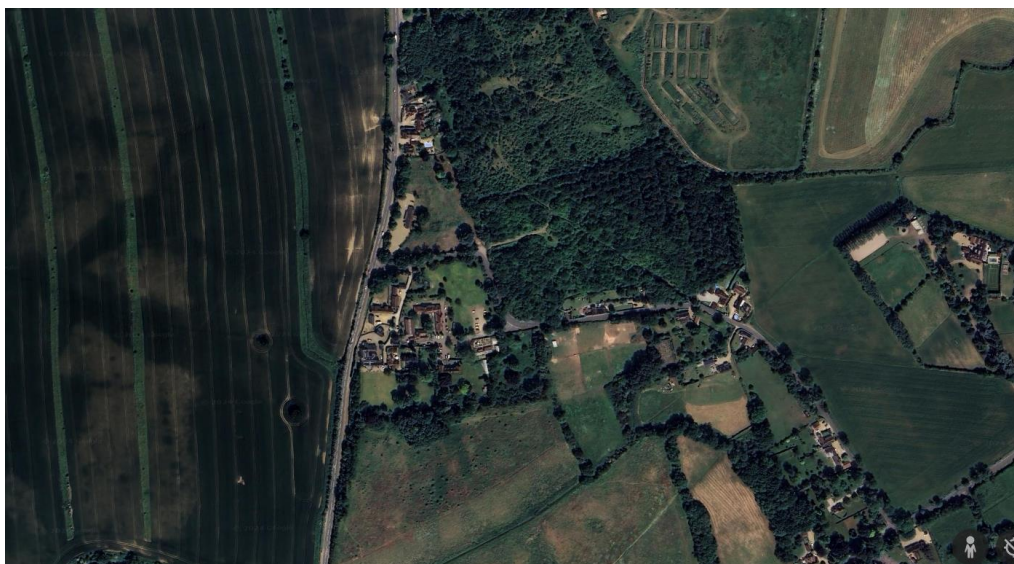
Ordinary Watercourses

There are no Ordinary Watercourses within the application area. There is an unmaintained ditch like feature on the opposite side, the south side of Pound Lane.

Ponds

There are no ponds or standing water features within the application site.

6. Wider environment



To the north is a group of eight private houses some with large gardens, formerly a Post Office and the White Hart Public House amongst the group. Linnet's Wood and Ugley Park low density woodland are to the east. An extensive area of arable land lies to the west and low density housing with large gardens is to the south.

7. Desktop information

Magic.gov indicates the following.

Licences

The nearest Natural England EPSM licence is

Case reference of granted application

EPSM2009-938

Species group to which licence relates

Bat

Species on the licence

C-PIP; BLE; NATT

Site county of licence

Essex

Licence Start Date

21/12/2009

Licence End Date

20/12/2011

This licence terminated in December 2011 and was issued for the destruction of a resting place for *Pipistrellus pipistrellus*, *Plecotus auritus* and *Myotis nattereri* approximately 250 metres to the southwest in what appears to be a featureless arable field. It would not be the first time that Magic.com has incorrect data.

Other planning applications nearby

The majority of the applications surrounding the site are small developments with only a Biodiversity Checklist or no ecological information at all.

The land to the northeast beyond Ugley Park has a good deal of information in the application to discharge Condition 41. The relevant section is quoted below.

UTT/24/0716/CC | Consultation on ESS/66/22/UTT/41/1 – Details pursuant to condition 22 (Hard and Soft Landscaping), condition 23 (Landscape and Ecological Management Plan) and condition 41 (Aftercare Scheme) attached to planning permission ref: ESS/66/22/UTT (Importation of soils to allow for the re-capping and reprofiling of restored landfill; and installation of a ground-mounted solar array). | Ugley Landfill Site Cambridge Road Ugley Bishops Stortford CM22 6HT

9 BIRDS

9.1 CURRENT STATUS AT THE SITE

A number of bird species were recorded breeding within and around the peripheries of the site (AB Ecology, 2022). Schedule 1 species, red kite *Milvus milvus* and hobby *Falco subbuteo* were confirmed to be foraging on site, but not breeding, within or in the vicinity of the site.

A number of skylark *Alauda arvensis* and two pairs of grey partridge *Perdix perdix*, both red list species of conservation concern, UK Priority Species and Local Priority Species, were recorded breeding on the site.

A number of other species of bird were also recorded but were generally associated with the plantation woodland and mature scrub outside the site boundaries which will not be directly affected by the proposed works.

9.2 AIM

To retain and create a mosaic of habitats including woodland, scrub, species rich-grassland and hedgerows that offer a variety of ecological opportunities for various species of nesting and foraging birds, within the site.

9.3 ENHANCEMENTS AND MITIGATION

Once re-capping works are complete the majority of the site will be returned to species-rich neutral grassland that will be suitable for the ground nesting bird species such as grey partridge and skylark. Additionally, the hedgerow that was planned to run down the centre of the site has been moved to the boundary of the site to allow a larger area of open grassland to be created which will potentially support more breeding pairs. Skylark and other ground nesting birds generally will not nest within 50 m of a hedgerow due to the risk of predators using the hedgerow as a perching site. The majority of the grassland will be managed by annual cutting. To ensure that the cutting does not have a detrimental impact on breeding birds the cutting will be scheduled to be undertaken in late summer/autumn (late August/September) which is outside the ground nesting bird breeding season. The area of grassland in the northwest of the site will not be annually cut but instead will be allowed to grow tall and tussocky which will favour field voles *Microtus agrestis* and other small mammals which are the preferred prey species of barn owl *Tyto alba*. This area will only be cut once every three years to allow a thatch of material to develop within the base of the grassland which will support more small mammals; this should encourage barn owl to forage on the site. Additionally, two barn owl boxes will be erected on the site boundaries within 1 year of completion of restoration works to create suitable roosting sites for this Schedule 1 bird species. Data Protection Act

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN - FEBRUARY 26, 2024

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN The majority of the trees and scrub surrounding the site will be retained and will be available to nesting birds. The new planting of woodland, scrub and hedgerows will benefit nesting birds such as blackbird and dunnock *Prunella modularis*. The creation of log piles and enhancements of habitat for invertebrates, will also be of benefit to birds such as robin and wren.

10. AMPHIBIANS AND REPTILES

10.1 CURRENT STATUS AT THE SITE

No waterbodies are present within the site boundary. However, the site lies very close to GCN breeding ponds, and monitoring surveys in 2018 found a large population across four ponds. Although none of the ponds are likely to be affected by the works, it is likely that terrestrial GCN could be present within the development footprint. Although a district level newt licence has been granted to allow the re-capping works to be

undertaken, habitats at the site should still seek to provide habitat in the longer term for this protected species. Although full reptile surveys were not undertaken in 2022, a single grass snake was recorded during the newt translocation carried out in 2016 and it is likely that the site would still support a small grass snake population.

10.2 AIM To create habitats at the site so that will provide suitable terrestrial habitats for amphibian and reptile species. To enhance and manage habitats within the site, in a sensitive manner with the knowledge that amphibians and reptiles may be present.

10.3 ENHANCEMENTS AND MITIGATION

The Construction Environmental Management Plan (CEMP) (AB Ecology 2023b) details how construction works at the site will avoid or minimise risk to amphibian and reptile species. The creation of wildflower grassland, woodland and scrub planting and the planting of speciesrich hedgerows will greatly increase the value of the site to the local amphibian and reptile population. However, management operations need to be thoughtful and well timed to minimise the impacts of these operations on amphibian and reptile species. To ensure the proposals do not have an adverse impact on amphibian and reptile species the following measures will be implemented:

- Site boundaries will be delineated by hedgerows where necessary. No fences or barriers to dispersal will be erected around the site boundaries or the woodland/scrub areas so that access is available at all times to amphibian species;
- Grassland cutting is likely to pose a major risk particularly to slow moving amphibians such as newts within the grassland. As amphibians are generally nocturnal grassland cutting will only be undertaken in daylight hours when these species are less likely to be out in the open grassland;
- Cutting of the grassland will only be undertaken once annually in late August-September before amphibians and reptiles are likely to be hibernating;
- A 1 m strip of uncut grassland will be maintained down the length of each of the hedgerows to allow taller rank grassland to develop which will be available for foraging amphibian and reptile species; and
- Wood piles will be created within the woodland blocks as and when suitable materials become available. During woodland management operations care should be taken not to disturb these piles as amphibians and reptiles may use them as daytime refuge.



Although perhaps beyond the commonly acknowledged dispersal range, it is not impossible for any *Triturus cristatus* or *Lissotriton* sp. that manages to disperse from the Biffa enhancement initiative across the terrestrial habitat of Ugley Park to this application area. Any individuals that do will meet good woodland edge terrestrial habitat and reasonable connectivity to the permanent water at the base of the swale.

Essex Recorders partnership Datasearch Report

Essex Field Club

In partnership with
Basildon Council
Buglife
Butterfly Conservation
Essex Amphibian & Reptile Group
Essex Bat Group
Essex Birdwatching Society
GeoEssex



Registered Charity Number 1113963

Bio and Geodiversity data regarding
Project Ugley
Radius 2km from TL5156427292

On behalf of

Mr Ashley Arbon
Consultant Ecologist self-employed

EFC6233, 10-01-2024

When information in this report is used in a desk study, Environmental Statement or to support a planning application, then the report must also be put into the public domain and provided in full in the searchable pdf format in which it is supplied and not changed or redacted. This is a stipulation to enable full transparency in the planning and consultation process for the planning authority, consultees and the public.

The Essex Field Club, Registered Charity Number 1113963.

Registered Office: Green Centre, Wat Tyler Country Park, Pitsea Hall Lane, Pitsea, Basildon, Essex SS16 4UH
Website: www.essexfieldclub.org.uk Email: datasearch@essexfieldclub.org.uk or Phone: 01375 371571



Page 1/121

a. Nature Improvements Areas

No Nature Improvements Areas are identified near the search area.

b. Local Nature Reserves (England)

According to the Essex Field Club biological records dated 1st October 2023 there are No Local Nature Reserve/s are identified in relation to the search area

National Nature Reserves (England)

No National Nature Reserve/s are identified in relation to the search area

Essex Local Wildlife Sites

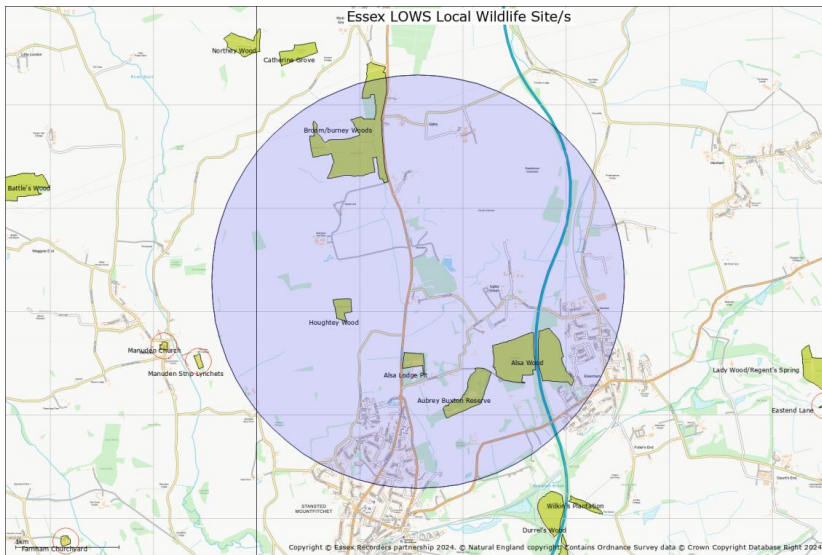
There are 15 Essex LOWS Local Wildlife Site/s identified in relation to the map area.

See Local Wildlife Site Citations pages at end of report for details.

1. Ufd72 Broom/Burney Woods
2. Ufd78 Alsa Lodge Pit
3. Ufd70 Houghtey Wood
4. Ufd85 Aubrey Buxton Reserve
5. Ufd95 Alsa Wood

Ufds 6-15 are all greater than 2000 metres from the application area.

6. Ufd33 Battle's Wood
7. Ufd36 Farnham Churchyard
8. Ufd48 Manuden Church
9. Ufd56 Manuden Strip Lynchets
10. Ufd59 Northey Wood
11. Ufd67 Catherine Grove
12. Ufd98 Durrel's Wood
13. Ufd102 Wilkin's Plantation
14. Ufd131 Lady Wood/Regent's Spring
15. Ufd134 Eastend Lane



c. Ramsar Sites (England)

No Ramsar Site/s are identified in relation to the search area.

d. Sites of Special Scientific Interest Units (England)

e. Sites of Special Scientific Interest (England)

There are 6 Site of Special Scientific Interest/s identified in relation to the map area.

Of these six, Hall's Quarry SSSI is the nearest at 660 metres for Unit 1 and 700 metres for Unit 2 both to the northeast.

Hall's Quarry

Elsenham Woods

High Wood, Dunmow

Hillcollins Pit

Patmore Heath

Quendon Wood

f. Special Areas of Conservation (England)

No Special Area/s of Conservation are identified in relation to the search area

g. Special Protection Areas (England)

No Special Protection Area/s are identified in relation to the search area

h. Biosphere Reserves (England)

Nearest Biosphere Reserve is near Brighton, Sussex.

- i. Wild Bird General Licence Protected Sites Condition Zone (England)
- j. No Important Invertebrate Areas are identified in relation to the search area
- k. All designated Traditional Orchards are in excess of 1000 metres

Biological records

None of the biological records relates to any specific point within the application area. It would appear that the site has not been professionally investigated for at least 25 years.

Invertebrates

Terrestrial invertebrates recorded from fingertip / destructive searches 2023 and 2024 and the reptile refugia investigation.

- i. *Lasius flavus* Yellow Meadow Ant
- ii. *Lasius niger* Black Garden Ant northeast corner only
- iii. *Bombus terrestris* Buff Tailed Bumblebee
- iv. *Bombus lapidarius* Red Tailed Bumblebee

Myriapoda

Chilopoda

- v. *Lithobius forficatus* Brown Centipede

Diplopoda

- vi. *Polydesmus angustus* Flat Backed Millipede
- vii. *Tachypodoiulus niger* White Legged Snake Millipede

Coleoptera

- viii. *Coccinella septempunctata*, Seven-spot Ladybird
- ix. *Ocypus olens* Devil's Coach Horse

Crustacea

Isopoda

- i. *Armadilidium vulgare* Pill Woodlouse
- ii. *Oniscus asellus* Shiny Woodlouse raised blotches.
- iii. *Porcellio scaber* Rough Woodlouse
- iv. *Trichoniscius pusillus* Pygmy Woodlouse

Mollusca

- v. *Cornu aspersum* Garden Snail
- vi. *Cepaea nemoralis* Dark or Brown Lipped Banded Snail

- vii. *Arion hortensis* Garden Slug
- viii. *Limax maximus* Great Grey Slug
- ix. *Arion ater* Large Black Slug
- x. *Limacus maculatus* Green Cellar Slug see below



An intensive fingertip search of the application area, the front and rear garden of Grange Farm, the outbuilding section, the agricultural buildings. In addition, the list includes the flying invertebrates recorded during the survey periods 2023 and 2024.

Lepidoptera

- i. *Maniola jurtina* Meadow Brown
- ii. *Anthocharis cardamines* Orange Tip
- iii. *Aphantopus hyperantus* Ringlet
- iv. *Aglais io* Peacock
- v. *Pieris rapae* Small White
- vi. *Celestrina argiolus* Holly Blue 2nd generation
- vii. *Pyronia tithonus* Gatekeeper
- viii. Several species of day flying moth but too rapid to pursue and identify.

Odonata

- ix. *Aeshna mixta* Migrant Hawker September 2023
- x. *Aeshna grandis* Brown Hawker

epigeic earthworms can thrive.

- xi. Aquatic
None; no permanent water

1. Fish

None; no permanent water

2. Amphibians



Numerous historic ponds, coloured blue on the 1898 map. These are all to the northwest of the application area. Not all of these are extant in 2024. Only one to the southwest, not shown in 2024. No ponds shown either in Ugley Park or to the northeast. The southeast has none until Ugley Green and around that area,

Order Anura

- i. *Bufo bufo* Common Toad None recorded

Throughout the site there are no proper ACOs, Artificial Cover Objects, The only shelter available was one pallet and a section of close boarded fencing? There are a few thin dead branches lying by some of the trees but not really suitable for shelter.



With the exception of these two structures there was no opportunity to undertake destructive searches.

- ii. *Rana temporaria* Common Frog None recorded

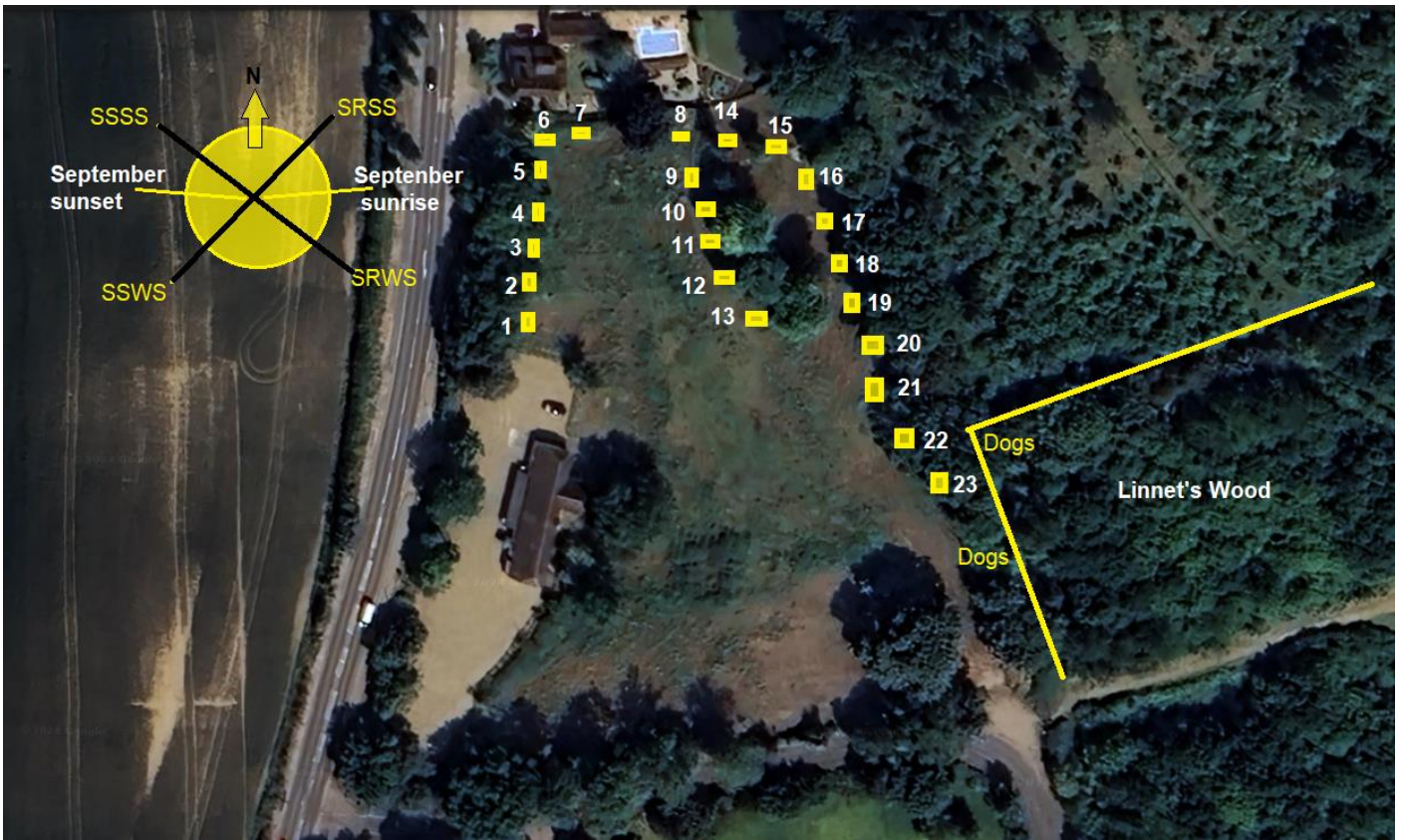
Order Urodela

- a) *Triturus cristatus* Great Crested Newt None recorded



- b) *Lissotriton vulgaris* Smooth Newt None recorded
- c) *Lissotriton Helvetica* Palmate Newt None recorded

3. Reptile





Laid down on the 28th August. There were very few ACOs, Artificial Cover Objects other than one pallet, a section of close boarded fencing and an old tyre.



Reptile survey	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Visit 7
Date	07/09/2023	12/09/2023	15/09/2023	18/09/2023	21/09/2023	25/09/2023	29/09/2023
Start time	11.07 hrs	15.56 hrs	10.35 hrs	11.02 hrs	11.14 hrs	11.08 hrs	11.03 hrs
End time	11.43 hrs	16.31 hrs	11.14 hrs	11.35 hrs	11.27 hrs	11.40 hrs	11.35 hrs
Temperature	18	18	18	16	16	17	16
Wind speed direction	1 mph NW	3 mph NW var	3 mph W var	5 mph S-SW	5 WNW	3 E	5 S
Cloud cover	40%	100%	10%	40%	20%	20%	30%
Sun	Strong	Overcast	Strong	Strong	Strong	Strong	Strong
Hours since last rain	24 +	24 +	24+	24 +	24+	2 hours	24 +
Mat 1	0	0	0	0	0	0	0
Mat 2	0	0	0	0	0	0	0
Mat 3	0	0	0	0	0	0	0
Mat 4	0	0	0	0	0	0	0
Mat 5	0	0	0	0	0	0	0
Mat 6	0	0	0	0	0	0	0
Mat 7	0	0	0	0	0	0	0
Mat 8	0	0	0	0	0	0	0
Mat 9	0	0	0	0	0	0	0
Mat 10	0	0	0	0	0	0	0
Mat 11	0	0	0	0	0	0	0
Mat 12	0	0	0	0	0	0	0
Mat 13	0	0	0	0	0	0	0
Mat 14	0	0	0	0	0	0	0
Mat 15	0	0	0	0	0	0	0
Mat 16	0	0	0	0	0	0	0
Mat 17	0	0	0	0	0	0	0
Mat 18	0	0	0	0	0	0	0
Mat 19	0	0	0	0	0	0	0
Mat 20	0	0	0	0	0	0	0
Mat 22	0	0	0	0	0	0	0
Mat 23	0	0	0	0	0	0	0

Order Squamata

Sub-Order Serpentes

- a) *Natrix helvetica* Barred Grass Snake None recorded either from the transect walks or from the refugia survey.
- b) *Vipera berus* Adder None recorded

Sub-Order Lacertilia

- a) *Anguis fragilis* Slow-Worm None recorded

The biological records are limited to Elsenham 2021 and two records from Stansted Mountfitchet in 2018. There appear to be no others from planning applications nearby.

- b) *Zootoca vivipara* Common Lizard None recorded

4. Aves Birds

The existing habitats are mature and semi-mature perimeter trees and neutral grassland. The management of the grassland appears to be regular several times a year. Occasionally the sward height exceeds 400 mm. The quiet nature of the site away from the carriageways, the B1383 and Pound Lane would appeal to ground nesting birds if the mowing regime allowed.

1. *Tyto alba* Barn Owl. The rough grassland habitat of this application area appears to be ideal for quartering and hunting. The botanical lists obtained from these areas and the field to the west show recorded in 2023 and 2024, showed a rich flora, albeit very common species, which suggests no pesticide treatment for some time. During the visits, some species within the plant community was allowed to fruit, thus the carrying capacity for small rodents and insectivores was considerable. Nesting opportunities though were limited, due to lack of suitable buildings or purpose-built structures. The wider environment does provide ample hunting territory to the east. The two carriageways of the B1383 and Pound Lane may have heavy traffic at peak times but would not be a justified reason for not placing a nest box along the eastern side of this application area. Placing a nest box in one of the large *Quercus robur* along the eastern boundary, would not be a futile exercise in the long term.

The need for agricultural buildings to be rodent proof and thus able to store 'Quality Assured' produce is paramount for commercial farming. All buildings and outbuildings were examined, (see images below showing the search for Chiropteran roost sites), for the possibility of roosting and nesting, no pellets, faecal staining etc. With a purpose-built Barn Owl box positioned facing northeast or northwest with a good uninhibited access, would offer a much-needed opportunity for this Schedule 1 species to breed. Significantly unaffected by the proposals in this 2024 application.

Ground nesting birds.

2. *Alauda arvensis*, Skylark. The vast majority of the meadow is maintained throughout the calendar year as regularly mown. In addition, it is commonly understood that this species is reluctant to breed less than 50 metres from an established boundary. There appears to be ample open arable land in the wider environment which would offer significantly better opportunities for successful breeding.

3. *Emberiza calandra*, Corn Bunting,

The grassland of the meadow is regularly mown and maintained at a very low level. This species generally prefers a taller sward in which to nest. No evidence of this species during the visits in mid 2023.

4. *Perdix perdix* Grey Partridge

Initially this site looks favourable for nesting pairs. The woodland edge and varied botanical species producing suitable fruit and invertebrates for the offspring. The regular mowing is obviously a deterrent. A good deal of time was spent observing suitable areas and listening for their distinctive call in the summer. None were recorded during the late breeding period or coveys in the winter months.

Other avian species recorded during the survey period 2022 with three additional species recorded in February 2024..

1. *Turdus merula* Blackbird
2. *Philoscopus collybita* Chiffchaff
3. *Parus major* Great Tit very persistent male call in spring
4. *Prunella modularius* Dunnock
5. *Pica pica* Magpie
6. *Corvus monedula* Jackdaw
7. *Corvus corone* Carrion Crow
8. *Alectoris rufa* Red Legged Partridge arable field to west
9. *Phasianus colchicus* Pheasant arable field to east, significant numbers in February 2024
10. *Troglodytes troglodytes* Wren
11. *Columba palumbus* Wood Pigeon
12. *Sturnus vulgaris* Starling flying overhead
13. *Fringella coelebs* Chaffinch
14. *Dendrocopos major* Greater Spotted Woodpecker flying overhead and hammering in Linnet's Wood to the east.
15. *Sylvia atricapilla* Blackcap
16. *Cyanistes caeruleus* Blue Tit
17. *Motacilla alba yarellii* Pied Wagtail on lawn
18. *Aegithelos caudatus* Long Tailed Tit
19. *Milvus milvus* Red Kite flying overhead
20. *Erithacus rubecula* Robin
21. *Turdus iliacus* Redwing overflying February 2024
22. *Turdus pilaris* Fieldfare again overflying February 2024
23. *Carduelis chloris* Greenfinch 2024

Nothing rare or uncommon was recorded from the application area or the adjacent Linnet's Wood. It is axiomatic that all relevant areas will be checked for any nests prior to the commencement of any works, if planning consent is granted. There should be no reason for any contravention of Section 1b or 1c of the Wildlife and Countryside Act 1981 as amended. The applicant is fully aware of this part of Statute Law.

5. Mammals

a) Rodentia

1. *Microtus agrestis* Field Vole recorded under several of the reptile refugia
2. *Muscardinus avellanarius* Dormouse Some suitable habitat along te eastern boundary but no evidence of this species throughout the long survey period. There is no mention of this species in the 2000 metre radius of the Essex Field Club biological records.



d) Cervidae

Dama dama. Fallow Deer.

No direct observations or hoofprints within the application area but numerous hoofprints and faeces within the extended search area of Linnets Wood.

Muntiacus reevesii evidence of presence in Linnet's Wood

e) Canidae

Evidence of *Vulpes vulpes*, Red Fox in abundance but no evidence of a den within the application Red line or within the extended search area.

f) Chiroptera see separate report

Vascular Plants, Bryophytes and Fungi

1. *Tragopogon pratensis* ssp major Goat's-beard
2. *Cirsium arvense* Creeping Thistle
3. *Polygonum aviculare* Knotgrass
4. *Anisantha sterilis* Sterile Brome near entrance gate
5. *Rubus fruticosus* agg. Bramble
6. *Prunella vulgaris* Common Self-Heal
7. *Lapsana communis* Nipplewort
8. *Sonchus oleraceus* Smooth Sow-thistle
9. *Helminthotheca echioides* Prickly Ox-tongue
10. *Glechoma hederacea* Ground Ivy
11. *Arrhenatherum elatius* False Oat Grass common
12. *Lolium perenne* Perennial Ryegrass
13. *Arrhenatherum elatius* False Oat Grass
14. *Festuca rubra* sensu lato Red Fescue
15. *Malva sylvestris* Common Mallow

16. *Bellis perennis* Daisy
17. *Agrostis capillaris* Common Bent Grass
18. *Poa trivialis* Rough Meadow Grass
19. *Sonchus asper* Prickly Sow-thistle
20. *Elymus repens* Couch Grass
21. *Taraxacum officinale* agg Dandelion
22. *Holcus lanatus* Yorkshire Fog Grass
23. *Lactuca seriola* Wild Lettuce
24. *Ranunculus repens* Creeping Buttercup
25. *Jacobea vulgaris* Common Ragwort
26. *Scorzonoroides autumnalis* Autumn Hawkbit
27. *Prunella vulgaris* Common Self Heal
28. *Quercus robur* Pedunculate Oak two saplings
29. *Geranium dissectum* CutLeaved Crane's-bill
30. *Euphorbia peplus* Petty Spurge
31. *Dactylis glomerata* Cock'sfoot Grass
32. *Trifolium repens* White Clover
33. *Viola odorata* Sweet Violet
34. *Malva moschata* Musk Mallow



35. *Centaurea nigra* Black Knapweed
36. *Veronica chamaedrys* Germander Speedwell
37. *Agrostis stolonifera* Creeping Bent Grass
38. *Iris foetidissima* Stinking Iris
39. *Epilobium ciliatum* American Willowherb
40. *Hedera helix* Ivy
41. *Galium verum* Lady's Bedstraw
42. *Trifolium pratense* Red Clover cultivated form 'var sativum which has hollow stems etc.
43. *Cerastium fontanum* Mouse-ear Chickweed
44. *Geranium robertianum* Herb Robert
45. *Prunus spinosa* Blackthorn saplings
46. *Rubus armeniacus* Himalayan Bramble
47. *Rumex obtusifolius* Broad Leaved Dock.
48. *Alliaria petiolata* Garlic Mustard
49. *Epilobium hirsutum* Great Hairy Willowherb

50. *Urtica dioica* Common Stinging Nettle
51. *Glechoma hederacea* Ground Ivy
52. *Galium aparine* Common Cleavers near sheds
53. *Veronica persica* Common Field Speedwell
54. *Cirsium vulgare* Spear Thistle
55. *Phleum betolonii* Small Timothy Grass N.B. as the Peri-glacial aeolian sand deposits are immediately northwest a special effort was made to search for *Phleum phleoides* Purple Stem Cat's Ear but concluded that all specimens were *P. bertolonii*.
56. *Tripleurospermum inodorum* Scentless Mayweed
57. *Matricaria discoides* Pineapple Weed
58. *Convolvulus arvensis* Field Bindweed
59. *Plantago lanceolata* Ribwort Plantain
60. *Potentilla reptans* Creeping Cinquefoil
61. *Rupex crispus* Curled Heaved Dock
62. *Crepis capillaris* Smooth Hawk's-beard
63. *Plantago major* Greater Plantain
64. *Calystegia sepium* Hedge Bindweed
65. *Rosa canina* agg Common Dog Rose
66. *Sagina procumbens* Procumbent Pearlwort
67. *Rumex x pratensis* Hybrid Dock *Rumex obtusifolius* x *Rumex crispus*
68. *Myosotis sylvaticum* Wood Forget-me-not
69. *Trisetum flavescens* Yellow Oat Grass
70. *Scorzonoides autumnalis* Autumn Hawkbit
71. *Pilosella officinarum* Mouse-Ear Hawkweed
72. *Crataegus monogyna* Common Hawthorn
73. *Euphorbia lathyris* Caper Spurge Garden escape
74. *Sagina apetala* Annual Pearlwort
75. *Acer platanoides* Norway Maple purple form garden cultivar
76. *Fraxinus excelsior* Ash
77. *Acer pseudoplatanus* Sycamore
78. *Populus tremulus* Aspen
79. *Alnus glutinosa* Comon Alder
80. *Chamaecyparis lawsoniana* Lawson's Cypress
81. *Ulmus minor* Smooth Leaved Elm dead

Bryophytes

Marchaniophytes

1. *Frullania dilatata* on *Fraxinus excelsior*
2. *Lophocolea heterophylla*
3. *Lunularia cruciata*
4. *Metzgeria furcata*
5. *Radula complanata*

Bryophyta Mosses

6. *Amblystegium serpens*

7. *Brachythecium rutabulum*
8. *Bryum capillare*
9. *Campylopus introflexus* soil uprooted tree
10. *Ceratodon purpureus* ex campfire site
11. *Cryphaea heteromalla* tree bark only
12. *Dicranoweisia cirrata* on several trees
13. *Hypnum cupressiforme* sensu lato, tree bark only
14. *Kindbergia praelonga* under trees
15. *Orthodontium lineare* dead logs
16. *Orthotrichum* affine common on *Fraxinus excelsior* and *Acer pseudoplatanus*
17. *Phascum cuspidatum* ex *Tortula acaulon* disturbed soil by Pond 1
18. *Plagiomnium* affine one colony only along eastern boundary
19. *Rhynchostegium confertum* on *Sambucus nigra*
20. *Rhytidiadelphus squarrosus* dominant in the northeast section
21. *Ulota bruchii* sensu lato, capsule tapering towards the tip
22. *Zygodon viridissimus* numerous tree species

Conclusion

The biological records for which site much gratitude is due to the Essex Field Club, show nothing specific for this application area. The likelihood is that no professional survey has been carried out on this site in the last 25 plus years, It was essential therefore that a full survey of all relevant species be carried out, e.g., a proper reptile survey. The CIEEM Preliminary Assessment would not be appropriate even in the first instance. The application area and surrounding area that is open to the public has been visited 14 times from June 2023 to March 2024 to survey and collect relevant data. No rare or uncommon species of either fauna or flora were recorded.

The flora rich meadow is a mixture of species is a result of numerous microclimates. The erratic management of regular mowing the no mowing and the uneven local contours provides these small areas. Some of these are repeated again and again throughout the site. The presence of *Malva moschata* in discreet patches supports this opinion.

In the final analysis, the there is good scope for biodiversity enhancement with native hedges, open ditches and a permanent body of water, Light pollution will need to be carefully designed to allow all Chiropteran users to continue foraging around the tree lined perimeter.

A. R. Arbon MBE,

Consultant Ecologist,

██████████

██████████

██████████

██████████

19th April 2024

