

The Green House Sussex Ltd **Wildlife Report**

Nursery landscape and Nature Conservation Audit & Descriptive Maps

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1. Nursery overview

This nursery business grows tomatoes exclusively, in heated glasshouses. These range in age from structures built in the 1960s to the newest block erected in 2011. The tomatoes are planted in Jan/Feb with harvesting late March to November

The site is located just to the east of Barnham on a site located between lake Lane and the Portsmouth to Brighton railway line.

The site comprises about 15 hectares; of which more than 75% is the glasshouse area and other ancillary buildings like office, store, pack house and water storage facilities.



Nursery boundary outlined in red



SCENES AROUND THE SITE

clockwise from bottom left.

Privet Hawkmoth

Second year Hazel trees

Common Blue butterfly in meadow grass

2.0 Detailed conservation audit

2.1 Public footpaths.

There are two public footpaths crossing the site both leading from Lake Lane to pedestrian only un-gated railway crossing points. Both footpaths are maintained by the business. These footpaths are in regular use by the public, particularly local people exercising their dogs. Both are clearly signposted with finger posts.



2.2 Lakes, ponds, watercourses.

This site occupies a position right on the watershed between water which will reach the sea via the river Arun and water which will reach the sea via Lidsey Rife. There are no surface rivers, streams or ditches across the site but there are ditches along Lake Lane on the northern boundary.

There are no natural ponds but there are two reservoirs and two uncovered water silos on the site.



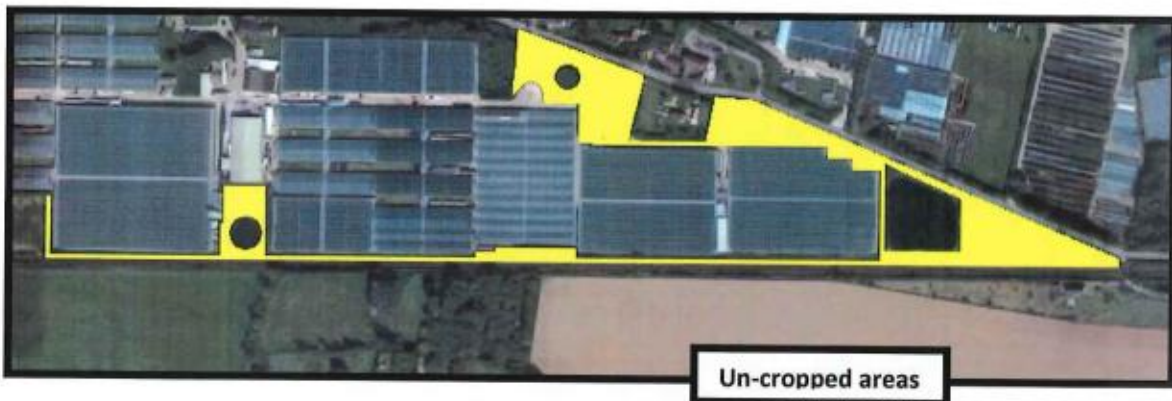
2.3. Significant hedges and boundaries.

The nursery contains various lengths of hedging. There are conifers planted as shelter belts. Some short sections of old mature hedging of natural species remain from former boundaries. Significant lengths of the northern boundary have been planted recently to act as visual screening of the glasshouses. The railway boundary has a mixture of trees, hedging and mature bramble as well as a post and wire fence line. The boundary does include Hazel and Ivy as well as other flowering trees and shrubs so there are nectar sources available at both ends of the season. It is beside the hedges and boundaries that most of the rough tussocky grass is situated.



2.4 Un-cropped areas used to enhance local biodiversity

The site has areas that are not covered by buildings or in other use. These areas occur in parcels around the site. Some of these parcels are small and others are quite large. They are concentrated around the perimeter of the site. Many of these areas are in sheltered positions and in the right conditions can be very warm, sunny and still. The nature of the business means that these areas are undisturbed by people in the course of their duties. The 5% threshold for land available as habitat is maintained and exceeded as shown on this map.



2.5 Important species

To be identified as an important species on this site it must be listed on the Sussex Biodiversity Record Centre website on a relevant list. There are some species here that are listed.

This site has a stable population of Cinnabar moth which is listed as a Biodiversity Action Plan Sussex species. This species is concentrated along the southern boundary and in the eastern corner. The moth trapping programme which began in 2015 has recorded eight additional moths that are on the BAP Sussex species list. These moths are Ghost Moth, Small Emerald, Dusky Thorn, White Ermine, Buff Ermine, Beaded Chestnut, Grey Dagger, Shoulder Striped Wainscot and Sallow.

Our bird list contains six species that are on the red list as "Birds of Conservation Concern". They are Herring Gull, Starling, Song Thrush, House Sparrow, Grey Wagtail and Linnet. Of these we have identified nests of Herring Gull and House Sparrow on the nursery. There are six further species; Mute Swan, Mallard, Shoveler, Common Gull, Meadow Pipit and Dunnock which are amber listed that are recorded here.

Barn Swallows nest regularly in the old pack house and in 2016 additionally in the canopy over the

packaging store door. Swallows have since 2019 also nested under the loading bay canopy. Wire mesh is now deployed to discourage swallows from nesting under the canopies. In 2016 swallows were amber listed as a "Bird of Conservation Concern". Their status has now been changed to a green listing. There is just one record of the Pearl Bordered Fritillary butterfly from 2012.



2.6 Features not present

This site has no statutory landscape designations. There are no archaeological remains, historic sites or traditional buildings. The property contains no areas that can be regarded as semi natural habitat.

2.7 Invasive alien species

The information we use to inform us of the relevant species is called SIASR (Sussex invasive alien species report). This is kept on the Sussex Biodiversity Record Centre website. There is one invasive alien species currently recorded on the site. This is Sycamore; there are a couple of medium sized individual trees here. There are no dense stands of Sycamore developing so at present we are not undertaking any control work.

Apart from the Sycamore trees there are no other invasive aliens on the site. The site is not particularly at risk from alien species and we are not aware of any on neighbouring properties. We do though as part of biodiversity monitoring look out for them. In particular, Japanese Knotweed, Giant Hogweed and Himalayan Balsam which we think are the most likely species to arrive here.



2.8 Location of added features

There are purchased manufactured items erected for the benefit of wildlife on the site. The locations of these items are detailed on the map below.



- A** Floating duck islands
- B** Information board alongside footpath
- C** Bird feeding stations
- D** Owl nest box
- E** Bat roosting box X4
- F** Bee hotels
- G** Hole nesting bird box
- H** Open fronted nest box

2.9 Butterfly survey route

This map is of the current route which was adopted in 2016. The butterfly data as collected is divided into four parts. North side, east end, south side and west end for analysis. These divisions are shown on the map below. The butterfly survey is carried out from April to September at a frequency of once every fourteen days.



NURSERY CONSERVATION AND ENHANCEMENT PLAN

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Carder Bee on Red Clover
June 2019



1.0 Summary

The reference point for conservation at this site is a Farming and Wildlife Advisory Group review. The review was compiled for the business in the summer of 2009 is used to guide for the overall policy and direction for conservation effort on the nursery.

Now that the recommendations from the FWAG report are largely completed we are implementing our own strategy to improve biodiversity and taking complete ownership of it.

Environmental policy and its implementation has a dedicated section within the company policies and procedures manual.

2.0 FWAG review

The review highlighted the small size of the land area owned by the business. As a glasshouse production company most of the holding is covered with glasshouses, ancillary buildings and miscellaneous plant. The site is in an area increasingly surrounded by intensive horticulture and housing developments. Overall this is making the site as much suburban as rural. These are the parameters that have to be worked with when making the site a place suitable for wildlife.

This review highlighted that there were significant populations of wildflowers around the site and that this resource was attracting bumble bees and in some areas butterflies. As these are the strong points of the review this is where the effort is being concentrated. At present and going forward the aim is to improve the quality and quantity of flowers and plants and in the process improve the site for insects,

in particular butterflies and bees. Both of these sorts of insects are good indicators of state of a location as wildlife habitat. The aim of the business is to increase our populations of these insects and

use this as an indication that the environment is improving overall.

To aid understanding of how changes to the mowing and cutting regime are improving habitat a regular wildlife survey of the site is now being undertaken. This survey includes a regular butterfly population count and a survey of bird species. It is intended to try and survey bumblebees as soon as we have the necessary expertise. A moth trapping programme started in 2016. These regular wildlife surveys will build a history of how the site is working as a habitat for wildlife.

After improvements to the plant and insect habitat it becomes more likely that birds will use the site. We think that time has arrived so now we are making changes to benefit birds. Two feeding stations have been installed and the first nest boxes for many years.

The report talks about the public areas of this nursery and suggests that in general that the current regime to keep these areas tidy were not inappropriate. Our analysis shows that this state could be improved by the insertion of some amenity style planting. Choosing the correct trees and shrubs can provide opportunities for insects while at the same time enhancing the public areas with a parkland type of planting. A scheme like this would be appropriate on a built up site that is as much a suburban as rural setting.



3.0 Key wildlife habitats

The nursery has a small land holding in an area of intensive horticulture on the edge of a growing residential area. Despite these obvious limitations the business is very focused on creating the best possible outcomes for biodiversity within its site. The aim is to create as much suitable habitat as can be squeezed into the available space. This means using an approach to biodiversity improvement that is more usually used in large suburban gardens and parks rather than agricultural farms and estates.

3.1 Hedgerows

Our hedgerows are marked on the conservation audit. They are a mix of shelter belts, visual screens and historic boundary lines. Maintenance is carried at long intervals. There is no need to cut them

regularly as there is no reason too. The usual reason to attend to them is either because they have grown high enough to shade our glasshouse crops or because they are growing out across the road. Any cutting is done before March 1st or after October 1st. This should be outside the period of bird nesting activity that has ever been observed here.

3.2 Water courses

The only water course associated with the site is the ditch alongside Lake Lane. This ditch is cleared as required to prevent flooding issues. The Green House Sussex Ltd tests the water in the ditch annually using the same water analysis company that tests our crop irrigation water. The ditch is often dry which can mean that obtaining samples has to wait for a prolonged wet period.

3.3 Trees

The majority of the trees on site are with the hedge lines. At present there are no plans to do any work on any of them.

3.4 Glasshouse margins

This is the land that is equivalent to field and boundaries and conservation headlands in an agricultural environment. The aim in these areas is to create a variety of habitats so that plants and wildlife can thrive.

These areas all tend to benefit from being very sheltered from the wind and can get very warm to the benefit of insects.

4.0 Key species

The key species known to use the nursery are listed on the map audit. There are 13 species of bird, 9 species of moth and one species of butterfly. There are 4 species of orchid growing regularly and another that flowered only in 2015.

4.1 Orchids

Early Purple, Spotted, Pyramidal and Southern Marsh grow here regularly. The four species of orchids on the site are all in known locations. Encroachment of scrub has depleted the orchid numbers but they are probably still alive underneath the scrub. The Bee Orchid has flowered here during one summer but has not been seen since.

4.2 Bees

To help maintain a healthy bee population we are keeping areas of land, particularly tussocky grass available for hibernation and nest making. The margins of the land north of glasshouse 10-13 are a good example of this. During the flowering season we avoid as much cutting as possible. There are four bee hotels providing extra opportunities for solitary mining and leaf cutter bees. Four new bee hotels are going to be installed over the winter of 2022/2023. The hotels bought in 2015 are starting to look increasingly battered.

4.3 Butterflies

The nursery has recorded 22 species of butterfly on the site over the last 5 years. We have a regular survey through the summer months. Our aim is to maintain and improve opportunities for these insects which are a good indicator of a healthy environment.

4.4 Farmland birds

This is not a typical farmland environment. Our species list therefore is not strong on typical farmland species such as Corn Bunting or Yellowhammer. The site has though recorded 6 species on the red list and 7 on the amber list of "Birds of Conservation Concern"

House Sparrow, Herring Gull and Dunnock all nest on the nursery. The Barn Swallow which was formerly amber listed nest in two places on the site and the nest sites are given the necessary protection. The swallows are given 24 hour access to the nests in the old pack house via deliberate gaps in the glazing. Bird feeding is carried out all through the year. Various foods are offered; including sunflower seeds, Nyjer seeds, suet etc.

There are a number of bird nesting boxes on the site as detailed on the map based audit.