

Response to Oxfordshire Cotswolds Garden Village AAP Issues Paper

Dr A. U. Larkman

Personal information

I am Chairman of Oxford Ornithological Society, and for the last 9 years or so I have co-ordinated the surveying of biodiversity at City Farm (together with members of Oxford Ornithological Society, the Oxfordshire Flora Group and local representatives of the Botanical Society of Britain and Ireland). I have also offered management advice over this period. I am also chairman of the City Farm Advisory Group, a team set up to obtain and administer grant funding through the Landfill Tax Credits scheme to promote wildlife-friendly farming at City Farm. It is probably fair to say that I have a more rounded knowledge of the biodiversity of City Farm than any other individual.

I am not a resident of Eynsham, and I will not be commenting on general aspects of the Area Action Plan. My comments are restricted to biodiversity issues at City Farm and their relevance to the location of the northern boundary of the Garden Village development.

A. Biodiversity Concerns

1. Overview

City Farm is an exceptionally biodiverse site, probably unique within Oxfordshire. Over 380 species of higher plants have been recorded over the last 7 years, including a good number that are rare or scarce at the national or county level. The biodiversity value of City Farm is mentioned in several places in the AAP Issues document, but I get the impression it has not been fully appreciated. City Farm consists mainly of arable fields and permanent grassland, along with a substantial area of scrub, small patches of woodland, 2 relatively large permanent ponds, 5 smaller seasonal ponds and some patches of wetland, divided mainly by large hedges containing numerous hedgerow trees. This range of different habitats within close proximity contributes greatly to the biodiversity value of the site.

2. Arable Fields

The arable (cultivated) fields at City Farm host an exceptional diversity of arable plants, which led to the farm being designated as a Site of European Importance by Plantlife in 2016. Arable plants are regarded as the group of plants declining most rapidly in the UK.

The Plantlife designation is based on a system in which species are awarded a score between 0 and 9 depending on their rarity and conservation status. Holdings are classed according to their points total and predominant soil type as follows:

Site of County importance	20+
Site of National Importance	35+
Site of European Importance	70+

At the time of designation, City Farm had 90 points; 2 further species of interest have since been recorded and the points total now stands at 95. Some of the rare plants, notably Annual Knawel and Field Woundwort, are present in considerable numbers. Others, notably Nettle-leaved Goosefoot and Broad-leaved Spurge had not been recorded previously in Oxfordshire for many years (1985 and 1990, respectively).

Since the Plantlife designation, arable plants of interest have been recorded from additional fields, such that every individual arable field on the farm has now passed the threshold score for a Site of County Importance.

One technical point – City Farm is described as ‘conventionally farmed’ in the Plantlife report. This is because not every field has been formally registered as ‘organic’. However, the

whole farm is managed without the use of herbicides, pesticides or chemical fertilisers, and this is important for its current and future success.

3. Permanent pasture

All the permanent pasture fields at City Farm are flower-rich and all have increased in species diversity since 2010. The best area, known as South Freeland Meadows, is a long-standing Local Wildlife Site. The other fields are less species rich, but they are all of botanical interest. For example, the 2 fields adjoining the Freeland Road (both within the proposed boundary) contain 2 species (Adder's-tongue Fern and Common Centaury) that are not found elsewhere on the farm, as well as many other species including Common Spotted-orchid and extensive areas of Common Bird's-foot-trefoil, Pignut and large populations of Red Bartsia.



Fields adjoining the Freeland Road (within the proposed northern boundary): Adder's-tongue Fern (left) and extensive areas of Pignut (centre) and Common Bird's-foot-trefoil (right)

Other highlights include Bee Orchid, Pyramidal Orchid and a large population of Red Bartsia in the Bank Field, Sidelands Field with a wetland area with abundant Wild Angelica.



Bank Field (just outside the proposed northern boundary): Pyramidal Orchid (left), Bee Orchid (centre) and area of Red Bartsia (right)



Sidelands Field (immediately adjacent to proposed northern boundary): Wetland area with abundant Wild Angelica (left), home to Britain's largest hoverfly, the Hornet Hoverfly (right)

Four different regimes of meadow management are practised in the different pasture fields at City Farm, to maximise both the floral diversity and the period during which pollen and nectar are available within the farm as a whole.

4. Invertebrate diversity

Invertebrates have not been surveyed systematically or by experts at City Farm, but the abundance and diversity of plant species present almost guarantees that a wide variety of invertebrates. Two examples illustrate the potential of City Farm for Invertebrates:

- Invertebrates were sampled for part of one summer (2014) by a student doing an MSc dissertation. He concluded that the farm was of SSSI standard for its insect assemblage.
- A single evening of moth trapping by 2 local experts yielded over 170 different species of moths, a remarkable total.

5. Bird diversity

A total of 92 species of bird have been recorded making use of City Farm (not just flying over) since 2009. At least 23 of these are known to have bred on the farm, notably Lapwing and exceptionally large numbers of Skylark.

The arable fields at City Farm (in contrast to most modern farms) are predominantly cultivated during the spring, and so provide weedy stubble throughout the winter. Weedy stubble is a very important winter feeding habitat for a range of seed-eating farmland birds, and its loss is thought to have been a major factor in their declines in recent years. City Farm is host to large numbers of small seed-eating birds during winter, notably Linnets, Yellowhammers and Goldfinches.

B. Boundary Concerns (Section 4.2 of the Issues Paper)

The currently proposed northern boundary runs through City Farm, such that approximately half of the land area of the farm would be lost to the development. This raises at least 4 areas of concern.

1. Biodiversity loss directly due to development of the southern part of City Farm.

The currently proposed boundary would result in the loss of the two pasture fields adjacent to the Freeland Road, and the southern arable fields that represent most of the cultivated area of the farm. While it is true that these are not the most botanically diverse fields on the farm, they are nonetheless of considerable biodiversity value:

- The plant species present in the Freeland Road fields indicate that these are old, unimproved meadows, which are widely accepted as valuable wildlife habitats. They

also include species (notably Adder's-tongue Fern and Common Centaury) not found in any other fields on the farm.

- The southern arable fields are all of County Importance for their arable plant assemblages, and, because of their substantial area, are of considerable importance for seed-eating farmland birds.
- An important goal of the City Farm project is to spread the rare arable plants around the farm as widely as possible, to minimise the chance of a disease outbreak or extreme weather causing total loss of any species. Our ability to continue this work will be severely hampered by the loss of most of the arable area to the development.

2. Biodiversity loss due to disturbance

Some of the most important and diverse fields are directly adjacent to the proposed northern boundary, including the South Freeland Meadow Local Wildlife Site and the ex-landfill field, which is not only the single most diverse individual field for arable plants but which is also the main nesting area for both Lapwings and Skylarks. Both of these are ground-nesting birds and are very sensitive to disturbance by people, cats and, above all, by dogs.

3. Risk of biodiversity loss due to changes in management of City Farm

The current, highly successful, management of City Farm relies on the goodwill and enthusiasm of many people, not least the tenant farmer and the occupants of the City Farm farmhouse. If the character of the farm were to change drastically, it is entirely possible that key people would become disillusioned with the project, leading to changes in the ownership and/or the unique management ethos of the farm. If this were to happen, it is very likely that dramatic biodiversity losses would ensue, including the probable loss of some species from the county altogether.

4. Physical and policy constraints

Many of the physical and policy site constraints identified in chapter 5 of the Issues Paper relate to areas associated with City Farm and areas located close to the northern boundary. These include:

- Amenity of existing residents at City Farm (section 5.8 of the Issues Paper)
- Heritage relating to listed building at City Farm (section 5.11)
- Archaeological heritage assets around City Farm (sections 5.13 to 5.18)
- Flood risk – areas along the proposed northern boundary are Flood Zone 2 (medium risk) and Flood Zone 3 (high risk) (section 5.28)
- Proximity of Local Wildlife Sites (South Freeland Meadows and others at City Farm) (section 5.32)
- Biodiversity – achievement of a net gain in biodiversity for the site as a whole (Table 5.41) will be very difficult if the species richness of City Farm is compromised.

C. Conclusion

City Farm is an exceptional site for biodiversity, particularly for arable plants. The currently proposed northern boundary of the Garden Village development will certainly lead to substantial biodiversity loss due to habitat loss and increased disturbance, and runs a significant risk of catastrophic loss of the unique biodiversity associated with City Farm if the ownership or farming ethos were to change as a result of the development.

I urge that the northern boundary should be relocated to exclude all or nearly all of City Farm from the Garden Village footprint.