

7.9.7 HABITAT & BIODIVERSITY

To be read with the Phase 1 Habitat Protected Species Survey by MKA Ecology. Ecological Consultants MKA Ecology have carried out a desk top study of designated sites in the local area. Technical notes and recommendations by MKA Ecology are summarised in this section. Full notes and species lists are included in Appendix x.x.x.

Local Context

The table below lists the designated sites found within close proximity (1km radius) of the proposed development site at Agar Grove.

Habitat linkages considered in the scheme include North London Line which is situated directly to the south east. The existing railway is likely to act as an important connecting feature between this site and the proposed development area. Proposed native planting along the southern boundary of the proposed development will strengthen this connectivity as well as draw wildlife into the site. Furthermore the native planting along the southern boundary of the proposed development site is likely to heighten the value of the North London Line as a wildlife corridor beyond the boundaries of the designated sites which exist along its length. Further connectivity is possible with Copenhagen Junction (a Site of Borough Importance Grade II) which lies to the east of the North London Line site and is of importance for its ruderal habitats. There is scope for the proposed development to provide a biodiverse spur off this wildlife corridor. Linkages to other areas of nature conservation significance are likely to be less pronounced given the distance of these sites. However, gardens and other planting within the vicinity of the proposed development site are likely to provide corridors for more mobile species such as birds and invertebrates. The ecological enhancements that have been proposed for Agar Grove will increase the ecological permeability of the site and therefore facilitate this movement of species.

Habitat recommendations:

Hedgerow/scrub: The proposed native planting along the southern boundary of the site will help to enhance the London North Line wildlife corridor. Further native scrub planting should be considered through the development footprint to mirror scrub habitats within nearby wildlife sites and to increase the ecological permeability of the site. These habitats will also provide shelter, breeding habitat and food resources for a variety of key species as listed in Appendix x.x.x.

Extensive/brown roofs: These habitat type will recreate a brownfield environment and thus mirror the habitats found in the nearby North London Line designated site (and other designated sites further afield MKA - CAN YOU PROVIDE EXAMPLES / REFERENCES? such as Copenhagen Junction Wildlife Site to the east). Brownfield environments are of critical importance for invertebrate species which thrive within the mosaic of habitats that these areas provide. These enhancements will provide suitable habitat for a number of key species listed below.

Intensive/green roofs: These habitat types will provide a high diversity of botanical species which will provide food plant sources and nectar resources for invertebrate species and in turn foraging opportunities for predators such as birds and bats. The provision of acid grassland habitats has been chosen to reflect the surrounding landscape which contains heaths and commons such as Hampstead Heath. Acid grassland is also a priority Biodiversity Action Plan habitat.

Street/squares tree planting: Native species planting should be considered established in these areas to provide food resources for invertebrates and bird species. Trees are also likely to provide nesting habitat for bird species. Berry rich species, such as Rowan, should be considered will be planted to provide a winter food source for over-wintering birds such as Redwing and Fieldfare which are both listed on the Camden Biodiversity Action Plan as well as providing a visually attractive feature.

Community growing boxes: These areas will help to improve public access to nature (Ref: Camden BAP Action Plan 1).

Site	Status	Proximity and direction	Details
London's Canals	Site of Metropolitan Importance	100m S	An important wildlife corridor through the city with significant diversities of aquatic flora, fish and birds.
Camley Street Nature Park	Site of Metropolitan Importance	1km SE	One of Britain's oldest and most influential urban ecology parks. Contains a diversity of habitats with important botanical diversity as well as invertebrates and amphibians.
North London Line at King's Cross	Site of Borough Importance Grade II	50m SE	Brownfield habitats, dominated by scrub, likely to be of importance for invertebrates such as butterflies.
St Pancras Gardens	Site of Borough Importance Grade II	1km S	An important area for public access to nature. Comprises a churchyard with wildflowers and specimen trees.
Rochester Terrace Gardens	Site of Local Importance	500m NW	Public gardens with native and non-native trees as well as areas of grassland managed for nature conservation value.

SUMMARY OF LOCAL SITES

Species

Based on the results of the desktop survey and Phase 1 Habitat and Protected Species scoping survey, we have recommended that the bird box scheme focuses on the following species:

Peregrine Falcon (*Falco peregrinus*);
 Black Redstart (*Phoenicurus ochruros*)
 Swift (*Apus apus*);
 Starling (*Sturnus vulgaris*)
 House Sparrow (*Passer domesticus*)

A provision of generalist bird boxes should also be made. Boxes to attract garden birds such as Great Tit and Blue Tit can be placed in gardens or open green spaces.

The tables included in Appendix x.x.x outline species of conservation significance that have been recorded within the vicinity of the proposed development site at Agar Grove and also other species of conservation significance that are listed as priority species both locally and nationally.

These species are known to occur within the vicinity of the site although the scope for introducing provisions for these varies depending on habitat requirements. Therefore, in order to facilitate planning for the proposed development site species have been graded to show where targeted enhancements are likely to be most effective. Habitat enhancements for species shaded in green are likely to be more successful and easier to create within the scope of the proposed development. Suitable habitats for species shaded in yellow are likely to be harder to create. Some species of local importance have been excluded from these lists because their habitat requirements are unlikely to be met within the scope of the proposed development site. For example the White Admiral butterfly which is a Camden BAP species has been excluded because of its reliance on woodland habitats. Similarly Stag Beetle has been excluded from the list because of its requirement for subterranean rotting deadwood in its larval stages.

Based on the results of the desktop survey (see Appendix x.x.x) and the Phase 1 Habitat and Protected Species Scoping Survey, we have recommended that the bird box scheme focuses on the following species:

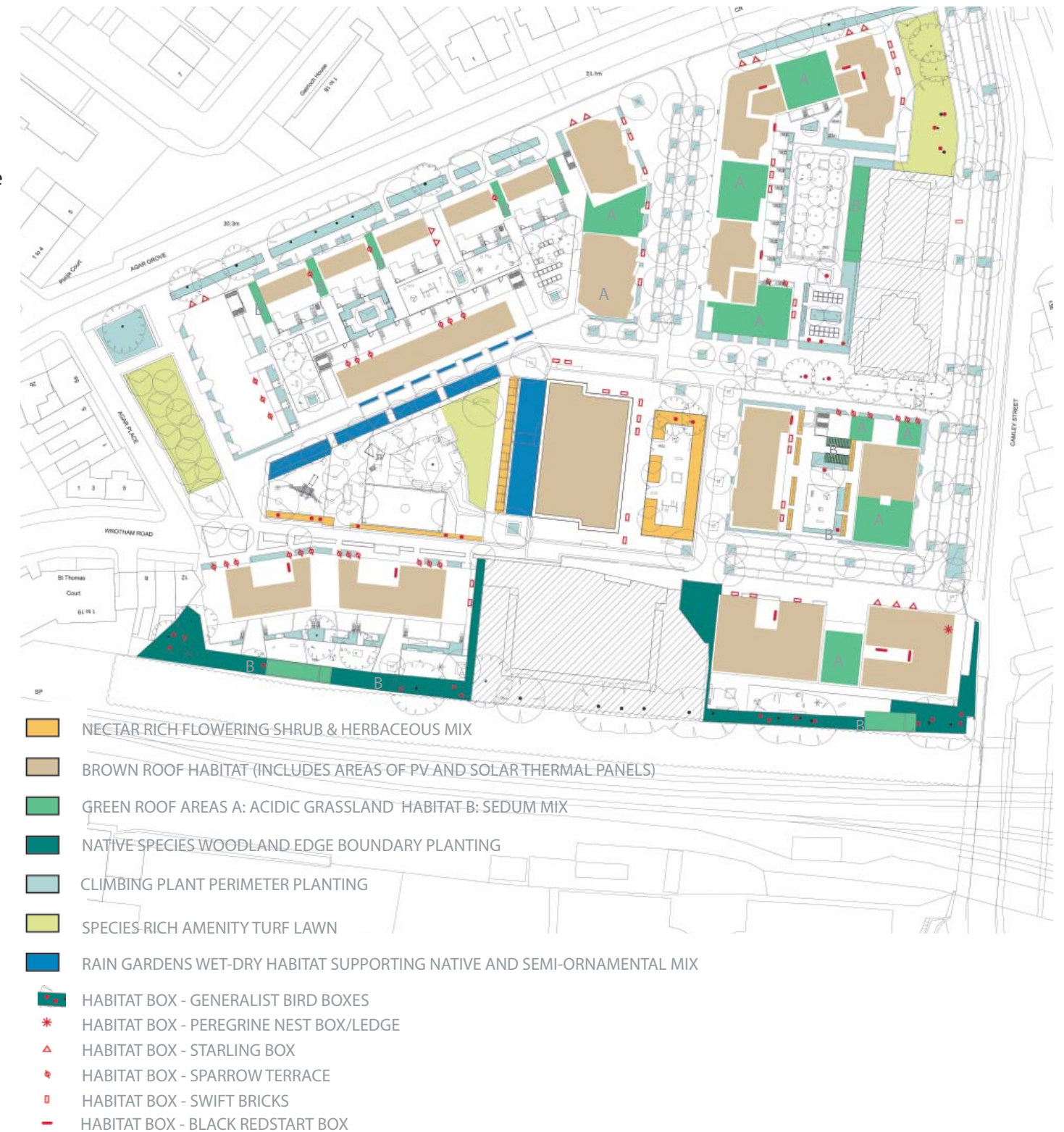
- Peregrine Falcon (*Falco peregrinus*);
- Black Redstart (*Phoenicurus ochruros*);
- Swift (*Apus apus*);
- Starling (*Sturnus vulgaris*);
- House Sparrow (*Passer domesticus*)

Provisions for all of these bird species will be straightforward within the scheme. Specific provisions for Peregrine (ledge/nest box mounted at high location), Starling and Swift (nest boxes) and House Sparrow (sparrow terraces and dense scrub) should will be made. Generalist nest boxes and planting should will also be considered provided and will to support a wider range of common and garden species such as Great Tit or Blue Tit. The habitat provisions, such as shrubs and trees, at Agar Grove will also provide nesting habitat for other key species including Dunnock and Song Thrush.

In addition to the bird boxes it is proposed that bat boxes will be included along the southern boundary of Agar Grove to provide roosting opportunities for these important mammals. This location has been chosen as it is close to the railway corridor which may provide commuting routes for bat to foraging areas beyond the site boundary. These boxes will be suitable for crevice dwelling bat species such as Common or Soprano Pipistrelle.

A wide variety of UKBAP, London BAP and Camden BAP invertebrate species have been recorded in the area and these are highlighted Appendix x.x.x. together with some of: their native food plants and habitat requirements. Habitat provisions and native planting at Agar Grove will focus on some of these species. For example the acidic grassland habitats associated with the green roofs will contain fescue and bent grasses upon which the Small Heath butterfly feeds. Planting specimen Oak and Lime trees will provide food plants for moths such as the Oak Hook-tip or the Brindled Beauty.

The habitat and species enhancements that are proposed for the Agar Grove Estate will help to meet the requirements set out within the National Planning Policy Framework. The proposals will ensure that Agar Grove, which is currently of very low ecological value, will contain a wide variety of key habitats and ecological features which are valued within the local area and beyond. It is anticipated that these habitats and features will deliver significant biodiversity gains as well as providing an attractive and exciting place to live and work.



HABITAT & BIODIVERSITY STRATEGY

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Management Plan

A diverse range of ecological habitats and features are to be provided at Agar Grove which will all be of benefit to wide a range of protected and notable species, such nesting birds, bats or invertebrates. These will include green roofs, bird boxes and native species planting.

It is important to ensure that these habitats and features are managed in a sensitive way to maximise their contribution to Camden's biodiversity. For this reason an Ecological Management Plan has been developed for Agar Grove. The Ecological Management Plan sets out proposals to achieve two aims which are;

- 1) To ensure that habitats and ecological features develop as required during the sensitive establishment phase; and
- 2) To define on-going management actions which will ensure that ecological features are managed in a sustainable way providing long-term benefits for local wildlife and attractive features for the residents of the estate.

The Ecological Management Plan sets out management actions for the following ecological features which are proposed for Agar Grove;

- Green roofs;
- Brown roofs;
- Species-rich grasslands;
- Rain gardens;
- Native planting in boundary habitats;
- Bird boxes; and
- Bat boxes.

The Ecological Management Plan defines the target habitat to ensure that a reference is available to guide management activities. The plan also describes the management activities that are required throughout the year to achieve these target habitats.

An example of sensitive management for the species-rich grassland will be twice yearly cuts at appropriate times of year to maximise species diversity. These habitat areas will be mown once at the end of winter to keep vigorous grass species in check as well as a further cut at the end of the summer which will allow time for the important target species to set seed. Species rich grasslands flourish in nutrient poor environments because these conditions ensure that vigorous species do not dominate. Therefore all cuttings from the species-rich grasslands will be removed to minimise the levels of nutrients returning to the soil.

A wide variety of other measures are proposed to ensure that the ecological features remain viable options for the wildlife of Camden. These include simple measures such as annual cleaning of bird boxes after the breeding season to ensure that nesting opportunities are ready for the return of breeding species such as House Sparrow, Starling and Black Redstart.

SALVAGE STRATEGY

As part of the proposals the design team will give consideration to the re-use of appropriate site won materials as far as possible. All proposals subject to compliance relevant test analysis during the demolition period of each phase of work.

Key resources for re-use include:

Resource	Opportunity for Re-Use
Existing topsoil	Site won topsoil stored on site for re-use within the scheme. Existing topsoil depths and physical and chemical properties are not known at this time.
Existing trees to be removed	Felling of existing trees will generate timber for natural and creative play, wildlife hibernacular
Existing buildings	Brick within the existing buildings to be demolished provides a potential source of crushed bricked for brown roof habitat zones and larger sized substrates to add variety within this habitat for invertebrates Existing building and paving materials demolition material may form suitable fill or granular fill for external works drainage zones.
Existing earth	In addition to the demolition of buildings, the proposed re-grading of the site provides the opportunity to re-use site won material as fill.

