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Future Homes Hub | Homes for Nature – Guidance Document

1. Introduction

This guidance has been created for the signatories of the Future Homes Hub, Homes for Nature initiative.

This guidance document has been developed to support key teams within each signatory's organisation.

The document is intended to provide information to:

- Sustainability teams
- Technical teams
- Commercial teams
- Sales teams
- Design teams
- Management Companies

Buff tailed bumble bee

1.1 The Nature Crisis

Nature is under threat around the world, with 60% of biodiversity believed to have been lost since the 1970s. Sadly, the UK is no exception to the rule. The most recent <u>State of Nature report</u>¹ for the UK shows that nature is still in serious decline across the UK, with 1 in 6 species (16.1%) at risk of extinction.

The State of Nature report points to key actions that can be taken to accelerate nature recovery, including creating more spaces for nature and targeting species which need support.

Homes for Nature aims to support a diversity of nature through creating spaces which allow them to feed, breed and shelter. In its early years, its primary goal is to provide for hedgehogs and swifts, two species which we know are in decline in the UK and which need support. However, it is anticipated that by installing universal integrated nest bricks, the project will help other cavitynesting, red-listed bird species.

Additionally, measures such as wildlife friendly SuDs, native hedging, and trees and planting for pollinators across developments will encourage and support a much wider range of wildlife. At the same time, these measures support people by helping cool the atmosphere, absorb pollutants, sequester carbon, reduce surface water flooding, and can contribute toward delivery of Net Zero. They also provide a range of socio-economic benefits which support the physical and mental wellbeing of the communities living there.

Homes for Nature will have a significant impact on the support of our wildlife, helping reverse current declines in numbers. By bringing homeowners and communities closer to nature, we will also contribute to people's health and wellbeing, allowing us all to appreciate the benefits of making space for nature. <u>Surveys from</u> <u>Barratt Development Plc's Kingsbrook</u>² development show the benefits that can be realised.

1.2 The Commitment

Our commitment under the Homes for Nature programme is as follows:

- A minimum of one nestbox per equivalent plot (excluding apartments) installed in line with the British Standard (BS 42021); and hedgehog highways on all sites with numbers and layout in line with ecological advice.
- Under the scheme, location, number, distribution, and type of measure will be decided on the basis of ecological advice, however, integral nest boxes must be installed with reference to the guidance set out in BS 42021.
- A 5-year programme commencing with all new planning applications from September 2024 through to 2030.
- Annual reviews of progress and outcomes.
- Annual reporting of installations.

- After the first year, further measures are encouraged such as bat roost boxes and tiles, insect bricks, and hibernacula. Location, number, distribution, habitat enhancements and type of measure will be guided by ecological advice.
- Nature friendly planting to a standard which aligns with recognised guidance for pollinators (e.g. NatureScot Guidance – Pollinators in Planning and Construction Guide; RHS Plants for Pollinators and Bumblebee Conservation 'Bee Kind Flower Finder³)
- Nature friendly SuDs, where appropriate, that incorporate the whole management train. Design and planting aligned with recognised good practice guidance for wildlife (e.g. Sustainable Drainage Systems (WWT, RSPB, 2012)).
- A commitment to working with the Future Homes Hub to devise an appropriate approach to surveying and monitoring of the scheme.

Our Commitment in Summary

Mandatory Measures	Recommended Measures
Integral universal nest bricks at a ratio of 1 per plot	Nature-friendly SuDs design
A beneficial hedgehog route on all developments	Insect bricks
Planting to support pollinators and provide structural diversity	Bat roosting tiles, boxes and bricks
Annual reporting of installations made	

1.3 Ecological advice

You must make your ecologist aware of the commitment to provide integral nest bricks and hedgehog highways at the ratios shown above on all sites, so that they can include these measures in their plans for your development.

Whilst it is our aim to secure as many improvements as possible for nature in line with our commitment above, there may be occasions where it is not appropriate to install certain measures. This guide does not replace the advice of a qualified ecologist at any point in the planning and development process.

1.4 Communicating your commitment

1.4.1 Key stakeholders

It is recommended that all organisations that have signed up to Homes for Nature communicate this fact to key individuals working for and with their organisation. These will include:

- Technical teams.
- Landscape architects, architects and designers.
- Planning teams and Urban designers.
- Ecological consultants.
- Production or Construction Teams.
- Sales and Marketing Teams.

- Contractors including landscapers, bricklayers and renderers.
- Management companies.
- Local Planning Authorities with whom you are working.

4.2 Customers

In addition, customers should be made aware of the commitment and what it means for them. This includes the measures in the homes they wish to purchase as well as elsewhere on the development.

A study into householder attitudes toward nest and roosting provision in new houses found that 75% of people surveyed thought nest and roost provision was a good thing. 85% said their decision to buy a house was unlikely to be negatively affected by the presence of nest bricks. The remaining 15% thought it might increase the likelihood⁴. However, experience also suggests that the sooner customers engage with the measures for nature in or around their home, the more positive the outcome is likely to be.



Great Tit (Parus major)

1.5 Examples of measures for nature around the home



It is important to inform customers about the measures in place on a development, where they are, why they are important, and how they will be managed (if necessary). Information may be provided via a combination of any or all the following: signage, literature in welcome packs or from sales offices, community websites or social media groups, and will add great value to the scheme.

1.6 Legacy and continuity

Most homes, whether privately owned or provided through Housing Associations, will, at various points, have new owners or residents. It is essential that installations are durable and will last as long as the fabric of the building. It is also essential that signage or other means of communication are provided, which will help to ensure the continued understanding and protection of measures over time regardless of changes in occupants or management companies. Organisations signing up to the Homes for Nature Commitment should consider how they can do this within their own developments. Interpretative signage around the site and along hedgehog access routes may be one option.

1.7 Maintenance considerations

It is essential to the longevity and success of the Homes for Nature scheme that planting and habitat are maintained on site in a way that establishes and enhances nature.

It is also recommended that information on maintenance of open space areas is made available to customers as soon as possible, particularly regarding features such as wildflower areas that are deliberately unmown and SuDs areas. This can help manage customer expectations and build awareness of the conditions that will help nature thrive on new developments. In order to use SUDS or other parts of the landscape for the delivery of BNG units an appropriate maintenance system must be in place for 30 years in line with the Landscape Ecology Management Plan (LEMP) or Habitat Monitoring and Management Plan (HMMP) submitted during the planning process. This is a legal requirement.

Maintenance requirements should be clearly established in line with agreed ecology management plans and communicated to Management Companies and other contractors. Monitoring of delivery on site is recommended to ensure that management plans are adhered to.



Common Pipistrelle (Pipistrellus pipistrellus)

2. Homes for Nature Mandatory Commitments Measuring and Reporting Progress

In signing up to the Homes for Nature commitment, all signatories have committed to reporting on progress on an annual basis.

2.1 Reporting progress

2.1.1 When to provide data and what to report

It is understood that each organisation's annual reporting will happen following their year-end, which will vary by organisation. Upon joining the commitment, the Future Homes Hub will ask signatories to confirm the month they will be reporting in so they can record when data will be received by the Hub. Signatories should include installations of hedgehog highways and integral nest bricks for whole developments or whole phases of developments which are completed in each reporting year.

The Future Homes Hub will collect the totals as they receive them throughout the year, publishing six monthly cumulative totals of installations. This will track the scheme's progress throughout the five years, with a final number reached at the end of the commitment.

Organisations must report from their first year-end following the September 2024 start of the commitment. The Future Homes Hub's first reporting of totals will be in September 2025, and 6 monthly from then onwards, in September and March. Reporting of installations before September 2024, at the first year-end, is allowed to showcase good practice before the initiative started.

After the five year commitment has ended, signatories are encouraged to continue to report the number of installations. Organisations are encouraged at all times to differentiate between installations which are a result of planning obligations and how many have been delivered on a voluntary basis through the Homes for Nature scheme.

For large developments, organisations may wish to report on the basis of phases completed. However, phases must be clearly identified to avoid the risk of double counting.

A reporting template has been developed and is shown in Appendix 1 of this document. It is also separately available as a stand alone document from the Future Homes Hub webpage. Signatories should also report information on developments where it has not been possible to install either hedgehog highways or nest bricks and provide reasons why the commitment has not been met as follows:

- Number of developments not meeting requirements in the reporting period.
- Number of completions not meeting requirements in the reporting period.
- Reasons why the commitment has not been met.

Reasons might include:

- Site started before the commitment was made. Therefore, the planning has already been completed.
- House design cannot accommodate nest bricks in line with British Standard.

2.1.2 Future Homes Hub Reporting

The information set out in section 2.1.1 above should also be provided to the Future Homes Hub annually. Signatories should confirm with the Hub when their year-end falls and in which month they expect to provide data.

A page will be hosted on the Future Homes Hub website to provide updates on progress. An accumulator count summing the contribution of all signatories will also be provided, showing progress across the group on all key measures, and a summary of challenges faced, new signatories, guidance updates, etc. Information shared will be collective and



Homes for Nature Measures included in Land Appraisal processes



Measures included in Planning applications in line with ecologist input



Ecology drawings overlaid on site working drawings or included in site and contractor packs



Measures communicated at site start meetings

 Installation of measures is an agenda item for design and construction meetings



Use checklist or other measures to track progress throughout build



Annually report to Future Homes Hub not identify individual signatories except with prior approval. Where there are opportunities to create individual stories and case studies in support of the work of the Homes for Nature project, the Hub will work with individual organisations to prepare these before publishing.

2.2 Demonstrating compliance

Each signatory is responsible for ensuring their own organisation delivers the commitment requirements.

It is recommended that internal processes are developed or adapted to ensure that the Homes for Nature commitment requirements are included in development proposals.

For example, the requirement could be included in land and planning appraisals or checklists which are signed off by Directors at the site appraisal stage. They could also be included in site start checklists, minutes and actions.

Processes for checking that installation has taken place as planned could include:

- Compiling procurement records.
- Obtaining photographic evidence from site production teams or Surveyors.
- Site visits and sample-led audits undertaken by Ecologists and landscape designers.

Signatories are responsible for keeping their own evidence of installation such as landscape scheme drawings showing the location of all measures and information from the suggested list above.

2.3 Monitoring outcomes

Once the scheme has had time to become established and sufficient measures are in place, signatories will be asked to develop surveys or monitoring programmes to assess the success of the measures. It is recognised that swift bricks may take several years to be occupied and used for breeding by swifts.

2.4 Guidance for Planning Teams and Architects

It is recommended that this guidance is provided to design teams as part of the Employer's Requirements to formulate the brief for the schemes. Providing this guidance educates the design team on the importance of the initiative and provides technical guidance. This will ensure the commitment is incorporated into the early-stage designs, embedding it from the outset. It is also recommended that the measures be highlighted in the Design and Access statements to inform the Local Planning Authority of the contribution to nature in their area.

2.5 Guidance for Site Teams

2.5.1 General Guidance

Site teams should familiarise themselves with the guidance on the installation of swift bricks and hedgehog highways in sections 3.1.2 and 4.1.1 of this document. Organisations should create their own standard detail drawings as required.



2.5.2 Tools

Organisations should develop the tools they need to ensure that nest bricks and hedgehog highways are included in developments in line with the commitment they have made.

An example Site Team Checklist tool is available in Appendix 2 to ensure a successful delivery of the Homes for Nature measures. It is suggested that the checklist or questions from the checklist are included in the site start pack, and any other forms or documents which organisations use to establish compliance. Responsibility for completing checklists and reporting compliance internally may be given to Surveyors and site managers to complete throughout the development build plan. Organisations may establish arrangements for data gathering in line with their own internal processes and structures.

The diagram opposite indicates potential opportunities to ensure that the Homes for Nature measures are included in site planning and reported as required.

2.6 General Guidance for Commercial Teams

Only integrated nest bricks which meet the requirements of BS 42021: 2022 should be purchased.

Installation instructions must be provided to site teams to ensure correct installation. You should check that the nest bricks you purchase are suitable for the type of construction in which they will be used – i.e. timber frame or masonry construction.

2.7 General Guidance for sales teams

Customers should be engaged on the Homes for Nature initiative as soon as possible during the sales process. This will help to allay any concerns. Where customers have concerns they may be able to select an alternative plot which does not have an integral nest brick or hedgehog route.

It is very important to ensure customers understand that where integral measures are installed, they are designed to not allow birds, bats or insects to enter the house space since they are completely self-contained.

A FAQ guide for customers is included at the back of this document which sets out why we are installing homes for nature, along with some simple guidance for homeowners on what to expect. This is also available as a standalone document in Appendix 6.

Reporting requirement :

Where sites cannot achieve the commitment requirement of one nest brick per equivalent plot, developers are asked to provide alternative nest boxes in lieu of bricks and to report these as part of their annual return or reporting process.



3. Homes for Nature Mandatory Commitments Integral nest bricks

A range of species rely on the use of nooks and crannies within the built environment to nest.

With the development of energy efficiency improvements for new homes, the availability of nest sites for such crevice-dwellers has declined. Even the most robust external nest boxes have a limited life span and can easily be removed, which is why we are committed through Homes for Nature to the installation of universal integral nest bricks.

Swift (Apus apus)

3.1 The role of universal integral nest bricks

There are a number of terms used for integral nest bricks. For consistency and clarity, all references in this document to 'nest bricks' mean universal integral nest bricks, which can be used by multiple species, including swifts. Using universal nest bricks also means that only one type of box is required, simplifying procurement and installation processes.

3.1.1 General guidance

The following general points should be kept in mind at all times.

- Integral nest bricks and their installation must comply with the requirements of BS 42021:2022. These nest bricks conform to building regulations, are suitable for most construction types and are typically maintenance free, sustainably manufactured, thermally stable and less prone to predation. They also ensure safe access and egress for birds using the nest bricks and prevent birds accessing the loft space or cavity.
- Detailed guidance on the location and installation of integral nest boxes is included in BS 42021:2022. The standard has appended illustrations for all construction types, including timber frame and modern construction. The guidance below aligns with the standard, but it is recommended that all organisations obtain a copy of the standard for their own understanding.
- Nest bricks (or boxes) should not be installed on or near fully-glazed buildings, which may result in fatalities if birds collide with the glass.
- Always ensure that plans to install integral nest bricks combine both the guidance from the standard and well-informed local ecological advice.

3.1.2 Location on site

Swifts often forage many miles each day, finding resources in built-up areas, suggesting that they will inhabit nest bricks which do not have immediate access to food sources. However nest bricks near suitable planting, such as trees, shrubs, hedging, flower-rich grasslands and surface water features provide the best conditions for attracting other birds likely to use the bricks.

3.1.3 Positioning on buildings

- Integral nest bricks are ideally positioned in the gable ends close to the roof verge or inserted tightly beneath eaves into walls which back onto cold voids and where the installation will not result in cold bridging.
- For plots with hipped roofs, integral nest bricks should be installed as high as possible below soffit level, and ideally next to stairwells or bathrooms to reduce the possibility of noise from chicks.
- Integral nest bricks for swifts should be installed at the highest possible point on low rise residential housing (ideally the higher the better). For buildings over three storeys the nest bricks should be installed between 4.5m - 15m and must ensure that adherence to building regulation requirements can be achieved.
- Where universal integrated nest bricks cannot be installed at the required ratios, nest bricks for other species (such as sparrows and tits) may be installed. These can be placed lower down on walls, and suitable heights can be achieved on garages too. However, the requirements of BS4212 should still be observed.



Note: some manufacturers can use a brick slip to match the brickwork of your project

 Integral nest bricks are more thermally stable than externally mounted boxes and can be placed on any aspect wall. However, the ideal orientation is in walls that face north through to southeast. Directly south-facing walls are best avoided, along with those facing prevailing winds and rain. Placing nest bricks close under eaves can help to provide shade and weather protection.

- Nest bricks should ideally have a minimum clearance of 5 metres in front of the brick to allow a clear flight path for birds into the nest brick. Consider the future height and spread of trees planted within this range, although maturing trees will not be prohibitive for species such as sparrows. Gable ends of homes which are very closely plotted to neighbouring homes are unlikely to be suitable due to the lack of a flight path into and out of the nest brick.
- Our commitment is to install the equivalent of one integral nest brick per plot. However, some parts of our developments will be better suited to the installation of integral nest bricks than others. Since Swifts and other species, such as House Sparrows like to live in groups, so success is likely to be higher where nest bricks are installed in groups of two on every second house or three on every third house in the most suitable locations.
- Where nest bricks are installed in groups they should be sited 65cm to 1m apart in suitable locations. Bricks can be placed under the eaves more than 1m above a window, but closer placement should be avoided to reduce any possible disturbance
- An experienced local ecologist with knowledge of the site, its surroundings, and who is familiar with the content of BS 42021:2022 can advise on target species, how many units should be included and where.
- Some models of integral brick have hole diameters that allow access to Starling. In some instances allowing Starling access will not be desirable, and should be considered by a suitably competent person. This is covered on page 7, section 7.3.2 of BS42021. Hole dimensions for various nest brick products can be found in the free download brochure listed in the appendix section on resources.



Locations where boxes could be installed a gable end, close to the eaves.

- Entrances higher the better
- Entrances 60cm to 1m apart
- Entrances tucked up near verge
- Gables without obstructions such as trees
- Positions not exposed to driving rain
- South-facing walls are acceptable for internal nest box, orientate on the north through to south east
- Where integral nest bricks are not possible there are options for including shelter within fascias and soffits
- Other aspects may be acceptable if shaded by wide eaves such as in hip-roof design

Location under eaves

• Entrances here may need Insulation behind.

Locations where a box should not be installed (eg above doors and windows).

3.1.4 Multiple nest bricks and colonisation

Providing multiple nest bricks in proximity can help to reduce competition within and between species vying for the same box. Swift and House Sparrow are colonial nesters, occupying several cavities close to each other. Starling tends to be loosely colonial. When prospecting for nests, a Swift often follows other species to their nest, investigating if other openings are available. Unlike many other species, Swifts take 3-4 years before breeding. Immature birds return to the the UK later than established birds, arriving from mid-June onwards and actively prospect for a future nest.

3.1.5 Types of integrated nest bricks

There are a range of nest bricks available from numerous suppliers.

Each supplier will be able to confirm the dimensions and availability of brick matches, and all suppliers will have options that are UK brick-size compatible. A brochure listing all currently available integrated swift bricks is available in the downloads section of the Action for Swifts website. See resources pages for further information.

3.2 Technical Guidance

3.2.1 Available guidance for installation of nest bricks

Guidance on design and installation of nest bricks is available from manufacturers. Developers should review the options available and select a brick suitable for their needs. However, there are some generic points to consider when installing nest bricks:

- The installation of built-in nest boxes should not adversely affect the weatherproofing, thermal insulation, fire and structural performance of the external wall.
- The nest box should be constructed from durable materials that will last the life of the wall it is to be built into. Nest boxes made from MgO and MgSO4 boards or similar materials are unacceptable.
- Full fixing instructions should be provided with each nest box together with the recommended installation zones in the external walls to suit the species of bird, bat or animal it is designed to accommodate. Additional guidance is available from BS 42021 'Integral nest boxes: Selection and installation for new developments – Specification'.
- Proprietary nest boxes are available in a variety of sizes and projections into the cavity with some extending into the inner leaf.

Your warranty provider may have specific guidance for the installation of nest boxes, however, their general guidance may be sufficient to cover the integrity of external walls where built-in boxes are included.

3.3 Tips for ensuring correct installation

In the busy life of a development it is possible for measures such as nest bricks to be inadvertently left out or incorrectly installed. The following tips may help to avoid this happening:

 Ensuring that nest bricks purchased are manufactured to BS42021:2022 will ensure that bricks are labelled to indicate the top and bottom of the brick helping contractors install correctly



- 2. Marking locations, orientations and heights on working drawings for contractors
- **3.** Ensuring site plans show the measures and number of measures to be installed on each plot
- **4.** Ensuring ecological plans are transferred onto site drawings and build plans

For case study information on this see the resources section (NF89 Biodiversity in New Housing Developments, produced by RSPB).

3.4 Other measures which are recommended - Non integrated nest boxes

In addition to integrated nest bricks, there will be demand for non-integrated nest boxes for species such as Robin, Wren, Wagtail, Kestrel, Barn Owl, Swallow and House Martin. Installation of non-integrated nest boxes may be required by planning conditions on the basis of ecological advice or where the integrated nest bricks cannot be delivered at a ratio of one per plot.

In all cases consideration should be given to locating external nest boxes in suitable locations with habitat appropriate for the given species (e.g. shorter grass for starling to feed in).

Information on types of nest boxes is included in the resources page of this document, however Ecology Consultants should always be consulted.

Where these measures are recommended by ecological appraisal, they should be installed and reported along with integrated nest brick installations.

Since both Starling and House Martin can benefit from non-integrated nest boxes and have a closer affiliation to nesting on houses than some species, further detail on how to support these birds is included in the Appendix of this document.



Barn Owl (Tyto alba)



4. Homes for Nature MandatoryCommitmentsAccess Routes for Hedgehogs

In addition to enhancing and creating new hedgerows as part of development landscaping, creating access through sites can help to avoid fragmentation of habitats for hedgehogs.

This means that they can roam to find food, nesting sites and other hedgehogs, helping to keep populations healthy and connected.

European Hedgehog (Erinaceus europaeus

4.1 The role of hedgehog access routes or 'highways'

A simple way to create a route through the site is by providing a small hole in fences and other impermeable boundaries which would otherwise prevent hedgehog access. Provision of multiple holes to create a connected route for hedgehogs is often referred to as a 'Hedgehog Highway'.

For consistency and clarity, all references to hedgehog highways in this document mean the creation of linked access points through and within developments to create routes for hedgehogs to use in accessing space, food and other hedgehogs.

4.1.1 Installing Hedgehog Highways

Hedgehog Highways are created by making or leaving small gaps measuring 130mm x 130mm in the base of walls and fences to allow hedgehogs to pass between neighbouring spaces. Gaps should be towards the back of the garden where possible, where planting and shrubs often provide shelter. Gaps in multiple boundaries are required which create a safe route through a development from garden to garden and into and out of open spaces, hedgerows and adjoining land, avoiding egress onto busy roads.

Hedgehog highways can be made on-site by your contractors or can be installed ready-made in certain fencing and boundary treatment products. A gap of 130mm x 130mm is required at ground level and is sufficient for all hedgehogs to pass through whilst preventing the escape of most small pets.





Christopher Morgan, Hedgehog Street European Hedgehog (*Erinaceus europaeus*)

Consider the overall connectivity of the surrounding area, and think about additional hedgehog highways, for example under side gates allowing passage from back to front gardens, and between gardens backing onto each other as well as adjacent gardens. Allowing access from gardens into communal green spaces is also important. A sign is recommended since over time new homeowners may not be made aware what the gap in the fence is intended for.

The Hedgehog Street Campaign maintains a list of companies that may be able to provide boundary treatments and fences with hedgehog highways.

Your ecologist will be able to advise you on how to lay out a hedgehog highway on-site. An example illustration is shown on this page. Note that it may not be necessary, and/or possible, to include hedgehog access points on all plots.

It is critical that levels are considered from the outset when designing hedgehog routes through sites. Access points will need to link areas without creating a drop or 'cliff'. It may be useful to install holes in garden gates where levels will be flat.

4.2 Other actions you can take to help hedgehogs

There are many other things that can be done to help hedgehogs on development sites. Developers may be asked to deliver other measures by planners or may choose to extend their support for these mammals by putting additional voluntary measures in place.

4.2.1 Installing Hedgehog Houses

Hedgehog houses are sometimes requested by planners as part of a wider biodiversity scheme for a development site. Ready-made hedgehog homes Garden access --- Hedgehog routes



can be purchased, but placement is key if hedgehogs are encouraged to use these resources. Hedgehog houses can make a great engagement tool for sales teams. However, to create the best possible chances of hedgehogs moving in, they should be placed in a quiet, shady, sheltered, dry spot (for example, against a wall, fence, hedge, or garden shed) with plenty of natural cover from shrubs and hedging. Entrances should not face north or northeast to ensure any occupants are protected against cold winter winds. An entrance tunnel or dividing walls inside will help prevent access by predators.

Hedgehog houses placed in public areas may be at risk of vandalism unless placed in very discrete locations and covered with natural materials, such as beneath a brash or log pile. An alternative cost effective and natural technique for a site is discrete log piles, appropriately located as described and which provide suitably sized openings at the base and a void inside that acts as a chamber.

4.2.2 Reducing hazards for hedgehogs

Hedgehogs are vulnerable to many hazards during development of a site and as a consequence of maintenance activities.

Level changes may create barriers to movement (e.g. high kerbs, steps, terracing, sunken patios, gullies and drains), so surrounding landscaping should ensure sloped access and escape routes for ground dwelling species such as hedgehogs. Adding sloped or ramp exits to water features and ditches will help to ensure hedgehogs can escape.

Hazards such as open holes, pits, ditches, ponds and drains should be covered over or fitted with ramps to allow for escape and checked regularly throughout construction. Netting should be kept off the ground and tied up to avoid entanglement. Rubbish should be kept in a designated area to prevent animals from becoming trapped. Rapid clearance of scrub or log piles should be avoided to allow mammals, reptiles and amphibians time to move away from the area safely.

Maintenance regimes should always specify:

- Preliminary checks are to be made for small mammals, reptiles and amphibians before cutting areas of long grass.
- Remaining watchful while undertaking work and the careful removal of animals encountered to a safe area.
- Initial grass cut levels a minimum of 22cm, even if it means a second pass once it's established the area is clear of vulnerable animals.

If a hedgehog is found during development and/ or there are welfare concerns, The British Hedgehog Preservation Society can be contacted for advice and guidance on 01584 890 801.

4.3 Tips for ensuring correct installation

1. Identifying a GPS location for hedgehog holes marked on drawings.

2. Engaging ecologists on hedgehog routes when final levels are understood.



European Hedgehog (Erinaceus europaeus)

5. Homes for Nature Mandatory Commitments Planting for Nature

Underpinning all the measures for nature is a great planting scheme, which can provide food and shelter for insects, birds and mammals throughout the season.

5.1 Planting for Nature and wildflower areas

Selecting native species and pollinator plants should not entail any additional cost but simply be a case of replacing an existing plant type with another. Structural diversity should be included in planting plans as well as the provision of nectar rich plants which will benefit insects and pollinators.

It is important to provide suitable food sources throughout the year to ensure the widest possible support for all wild pollinating insects.

Guidance on the selection of pollinator plants is available from the Royal Horticultural Society, Bumblebee Conservation Trust and Wildlife Trusts (see further resources).

5.1.1 Invasive species

There are several plants which, although nectar rich, are also highly invasive and must be avoided in planting schemes. Information on invasive plants to avoid is shown in Appendix 5) of this document, along with a list of plants to avoid (including a small handful of invasive species listed on the RHS and Bumblebee Conservation websites).



Great Tit (Parus major)

- Ash

6. Homes for Nature Other measures which are recommended

Examples and guidance for additional nature measures encouraged within new developments. These are in addition to the mandatory commitment and at each company's discretion.

Greater mouse-eared bat (Myotis myotis)

6.1 Sustainable Drainage Systems (SuDs)

Organisations should refer to all available sources of guidance on SuDs. Only a limited amount of information can be provided here in the form of general criteria sourced from the CIRIA SuDs Manual. A link to this resource is available in the further resources section of this document.

Landscape features that support nature can bring significant value to developments.

SuDs schemes must deliver across several functions: water quantity, water quality, amenity and biodiversity. The design should include all components of the SuDs management train from source to site control to maximise their value across amenities, climate response, wildlife value and economic benefit.

Amenity and biodiversity value can be delivered by even very small, isolated schemes, but the greatest value is achieved where SuDs are planned as part of wider green landscapes, as they can then help provide important habitat and wildlife connectivity⁵.

If SuDs are to deliver maximum benefit, they should be considered at all stages of the planning process from master planning to detailed design, and as far as possible should consider other landscape features and biodiversity opportunities on site. A multi-disciplinary team should be involved to ensure the best outcomes for all – ecologists, engineers, and landscapers will all be key.

6.1.1 General Criteria for SuDs Design:

a. Support and protection for natural local habitat and species. New SuDs schemes should aim (where appropriate) to be similar to, linked with and/or supportive of the natural and semi-natural local habitat and associated species.



Note: guidance above is indicative please consult specialist designer for project specific designs

- b. Contribution to the delivery of local biodiversity objectives. SuDs design should seek to align with and contribute to local, regional and national biodiversity targets, frameworks, strategies and plans.
- c. Contribution to habitat connectivity. To help address habitat fragmentation, new SuDs scheme should, where possible, link with other local and/or regional habitats to help create and enhance habitat connectivity within and between neighbouring areas.
- d. Create diverse, self-sustaining and resilient ecosystems. SuDs schemes should aim to have a range of habitat types to encourage resilience and increase biodiversity. Dispersal distances for plants, invertebrates and amphibians should be considered to allow ecological colonisation and re-colonisation in the event of damage to the SuDs system.

6.1.2 Creating habitat with structural variation in SuDs basin

Where possible structural variation should be provided both horizontally and vertically to create as many habitat types as possible within the SuDs feature. This will help to improve water quality, amenity, and wildlife value, while enhancing safety and ease of maintenance.

Dry shallow 'benches' should be provided for safety and maintenance reasons.

- Pond and wetland features should be irregular in shape with a series of ledges at shallow incremental steps with gentle slopes to each level.
- Varying the topography of each ledge creates additional microhabitats.
- Designing basins in this way greatly increases their safety and reduces risks.

- During excavation, soils can be used to form banks, mounds and terraces, which will aid the development of different habitats over time and which can provide dry, wet and temporarily wet areas.
- Variations in topography within SuDs and the wider development landscape can be used to deter insensitive mowing.
- Smooth finished surfaces should be avoided as they do not encourage the development of new habitats.

6.1.3 Planting for Nature within SuDs systems and wider landscape scheme

The following principles will help to deliver SuDs systems which are of most value.

Use structural diversity and complexity to provide most value to wildlife and enhance amenity.

Maximise use of plants which have known wildlife value and which are native, ideally of local provenance and appropriate to the area.

Select species which together will provide year-round cover, fruiting and flowering to provide food and shelter throughout the year for birds and invertebrates.

Use turfs or seed mixes which are flower rich and suitable for local soil conditions such as pH and moisture content.

Ensure maintenance schedules create varying sward heights to provide foraging and roosting opportunities for wildlife. For example, taller swards may be used by insects for foraging, egg laying, nesting, or pupating and also help clean and attenuate run-off flows.

Utilise planting schemes which are appropriate to the design.



Drought tolerant but nectar rich species such as chamomile and thyme may be used even in gravelled areas.

Include trees, scrub and wet woodland features. Appropriate management of these areas will be required to ensure that the intended biodiversity is retained.

Maximise opportunities for providing or retaining dead wood in dry or wet areas.

Never introduce invasive species. (See section appendix for details of invasive species to avoid).

6.1.4 Protection from pollutants

Care should be taken to ensure that run-off from harmful silts and substances cannot enter the SuDs system.

6.1.5 Maintenance for Biodiversity

It is critical to maintain, develop, and enhance the value of SuDs systems over time that they are maintained with Biodiversity in mind. In order to use SuDs for the delivery of BNG units an appropriate maintenance system must be in place for 30 years in line with the Landscape Ecology Management Plan (LEMP) or Habitat Monitoring and Management Plan (HMMP) submitted during the planning process.

6.2 Measures for insects, bees, reptiles and amphibians

Supporting insect populations, in turn, supports birds and other mammals, so a healthy insect population is essential to the wider ecological health of an area. Perhaps the most important element in supporting insects on site is the provision of year-round access to food and shelter. Whilst many insects hibernate or will over winter as an egg or pupae, some will remain active throughout the winter, seeking shelter from low temperatures in water or undergrowth. There are provisions which may help provide homes for insects whilst planting matures.

6.2.1 Bee bricks, Insect bricks and bee towers

The Bee Brick can be used in place of a standard brick or block in construction to create a habitat for solitary bees. Alternatively, bee towers and bricks can be incorporated as standalone features in open space to support species such as red mason bees and leafcutter bees, both of which are non-aggressive. Each Bee Brick contains cavities where solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring, and the cycle will begin again. Each cavity goes partway into the brick, which is solid at the back.

Bee Bricks should be placed in a warm, sunny spot on a south-facing wall at a height of between 1m and 1.5m with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants be located nearby so that the bees using the bricks have food; otherwise, it is unlikely that the bricks will be used. Lavender, Honeysuckle and Salvias are just three pollinator-friendly plants. For a comprehensive list, refer to the RHS and Bumblebee Conservation.

There are currently mixed opinions on whether bee bricks should be cleaned or not. Any cleaning that takes place should be done at the end of the season when the brick is empty, between late September and October. Organisations may wish to include cleaning in management company contracts and monitor the impact. Bricks are more likely to be maintained if incorporated in public open space.

Bee Towers are simply larger structures which can be included in open spaces or landscaped areas and perform the same function as bee bricks.

6.2.2 Bug hotels

Bug hotels will engage young children and will create a great communication tool when placed in a show garden setting. Typically, they provide shelter and nesting opportunities for bees and butterflies, woodlice, ladybirds, spiders, snails and more, especially in autumn & winter when they're looking for somewhere safe and cosy to hibernate.



Within the wider development site, there is a risk they will be tampered with or removed and alternative more natural opportunities for invertebrates should be provided within the landscape. These may be horizontal or vertical log piles and areas of sparse vegetation and bare earth.

6.2.3 Hibernacula

Hibernacula can be used to provide homes primarily for reptiles and amphibians, as well as hedgehogs and other small mammals. In some instances, depending on their construction, materials used and location, they can also provide nesting or hibernation opportunities for invertebrates. Log piles and mounds of construction rubbles and aggregates provide voids,



cracks and crevices into which many kinds of wildlife can access for shelter and hibernation.

Hibernacula is best placed in public open spaces on a development. An ecologist should guide this. Its positioning and construction will vary depending on the type of species it is designed for. This will allow for any required maintenance or monitoring to take place. Management should be factored into the management company contract and management plans.



6.3 Bats

6.3.1 Threats to bats

In the UK, bat populations have declined considerably over the last century as a result of habitat disruption and loss, building works which affect roosts, and threats such as the use of chemicals, predation by cats and the impact of artificial lighting. This is important to understand because bats are a vital part of our native wildlife, accounting for almost a third of all mammal species in the UK and occupy a wide range of habitats, such as wetlands, woodlands, farmland, as well as urban areas. This means bats can act as bio-indicator species, telling us a lot about the state of the environment, as they are top predators of common nocturnal insects and are sensitive to changes in land use practices. The pressures they face are also relevant to many other wildlife species, making them excellent indicators for the wider health of the UK's wildlife. This is also why bats are fully protected under UK law⁶.

6.3.2 Installing measures for bats

Measures for bats may be required by planning conditions, including both integrated and externally mounted bat bricks, boxes and tiles as roosting provision (see photo below). As with nest bricks for birds, integrated bat boxes and tiles can be matched to the buildings materials and have the advantage of offering a secure, permanent space for bats with no maintenance requirements and better thermal properties.

Bat boxes, bricks or tiles should not be installed without considering the provision of suitable habitat for bats to forage nearby, a 'bed and breakfast' approach that will also create a habitat to benefit local invertebrate and bird populations. Bat provisions are also more likely to be used if they are located where bats are known to feed. <u>Habitat provisions</u>⁷ for bats include night flowering plants, the inclusion of water, and reducing light levels.

Ideally, several boxes, bricks or tiles should be placed facing in different directions on sunny aspects to provide a range of warm conditions. Provisions should be made as high as possible to avoid predation from cats on the ground or nearby structures. Provisions should be placed as close to the eaves as possible on buildings. Bats use dark tree lines or hedgerows for navigation, so putting provisions near these features could help bats find the box and provide cover from predators.

In summary, locate bat roosting provisions:

- Where bats are known to feed and navigate (close to hedges and tree lines).
- Ideally at least 4m above the ground (where safe installation is possible).
- Away from artificial light sources (to protect them from predation).
- Sheltered from strong winds; and
- Exposed to the sun for part of the day (usually south, south-east or south-west).

As bats are vulnerable to disturbance and fully <u>protected under UK law</u>⁸, once in use, boxes must only be opened by a licensed bat worker. However, bat provision developed in line with best practice, such as those included in the BCT <u>Roost Partnership</u>⁹, have been designed not to require an opening for



Ridge roost for bats - photo supplied by the Bat Conservation Trust

maintenance or cleaning. If you are unsure if bats are resident and the bat provision requires maintenance or repair then a licensed bat worker should be contacted before opening, moving or disturbing the box. Otherwise, encouraging residents to survey for and report bat sightings on new developments and getting involved in bat walks or <u>citizen science</u>¹⁰ projects are excellent ways to connect people with nature and gather data on how the development is performing for bats and other biodiversity.

For further information on any of the above please visit the Bat Conservation Trust website: <u>www.bats.org.uk</u>¹¹

7. Appendices

Each appendices will also be provided as a stand alone document to be disseminated to the relevant teams.



Ladybird sp. (Coccinella sp.) many Ladybirds feed on aphids and help keep them under control

Appendix 1 – Reporting Template

(Excel supplied as standalone document)



Date: Reporting year period	Number: Developments completed in period	Number: With Hedgehog highway routes installed	If not all developments could include hedgehog highways please provide reasons	Number: Plot completions in period	Number: Nest bricks installed	If 1:1 ration of plot to nest brick could not be achieved, please provide reasons
Example						
Jun-25	10	6	Level changes resulted in some developments not being suitable	1000	559	Planning already in place for 4 developments 80 plots unsuitable for installation of nest bricks to BS

Appendix 2 – Suggested Checklist for site teams

Sug	gested Homes for Nature checklist		Yes	No
Projec	ct name:	Plot number:		
Date o	checklist completed:	Completed by:		
Site s	tarts Meetings			
1	Is the Homes for Nature requirement understood at site start meeting?			
2	Location plan obtained and displayed in site office?			
3	Contractors briefed on nest brick installations?			
4	Locations, height and numbers added to plot details and working drawings?			
5	Landscapers and fencing contractors briefed on hedgehog route installation	ns?		
Build	out			
7	Nest brick manufacturer confirmed?			
8	Nest brick installation instructions obtained and shared with contractors?			
9	Nest brick numbers and locations added to working drawings for bricklayers and renderers?			
10	10 Nest brick installations checked - correct install?			
Enter plot numbers checked:				
11	Photograph of installs sent to (surveyor or other)?			
12	Hedgehog installations checked - correct install?			
Enter	Enter plot numbers checked:			
13	Photograph of installs sent to (Surveyor or other)?			
14	A Installations confirmed to sales teams?			
Year	end			
15	Confirm number of nest bricks installed and report internally			
16	Confirm hedgehog routes installed in line with ecology plan?			
17	If measures not installed as planned please add notes here:			

Appendix 3 - Homes for Nature - Customer FAQ document

[Developer name] is a member of the Homes for Nature Commitment established by the Future Homes Hub. Through Homes for Nature, we are committed to support wildlife on our sites by providing nest bricks, hedgehog routes, planting to support birds and pollinators, and where possible, bat roosts and naturefriendly surface water drainage systems.

In particular, we are focused on providing nesting opportunities for endangered bird species, such as the Swift and safe access to habitat for hedgehogs with the aim of halting the decline in both species.

1. Why are these measures being installed?

Installation of some measures for nature is often required by planning conditions. Under the Homes for Nature commitment: we will be ensuring that all sites benefit from these measures to help the following species which are in decline.

Cavity nesting birds, such as swifts, are in decline, and four are now red-listed, meaning they are of conservation concern. One of the main reasons for the steep decline in species such as the swift, sparrow, starling and housemartin is the loss of their traditional nesting places – the nooks and crannies of buildings. An unintended consequence of making our homes more energy efficient has been the loss of crevices typically used by birds, such as swifts for nesting. We are hoping to help those populations recover by providing nesting opportunities.

Hedgehog populations are declining in the UK. There are several reasons, ranging from loss of hedgerow and other suitable habitat through the use of insecticides and other chemicals, road impacts and the effects of roads dividing territories and restricting hedgehog movements. We hope to help hedgehog populations establish and grow by assisting them to access habitat, food and other hedgehogs via hedgehog routes through our developments.

Many other species, including bats, birds, amphibians and reptiles are also facing decline due to the loss of habitat, pollution and climate change. Through our developments, we can provide spaces for nature, which ultimately deliver much better places for people to live.

2. What are the benefits?

The installation of these measures goes a long way in supporting our declining wildlife.

Birds, hedgehogs and bats are natural pest suppressors helping gardens require less pesticides and keeping biting flies, slugs and other plant pests at bay. Where these animals are doing well it indicates the local environment is healthy, providing wellbeing benefits for humans through pleasant green places to live and work.

By installing these measures throughout a development, we are providing multiple opportunities for numerous species to thrive alongside people.

In addition, there are opportunities to get involved and do more to help nature. From adding more measures to your home or garden to getting involved in some 'citizen science' counting birds, bugs and hedgehogs, there is more to do if you want to.

3. What does the Homes for Nature commitment mean for me?

Through the Home for Nature commitment, you will likely have a nest brick or nest bricks included with your home, along with a hedgehog access point into and



Red Mason Bee (Osmia Bicornis) regularly use pre-existing holes in mortar, timbers and bee boxes' credit to: Will George

out of your garden. You may also have an insect brick somewhere in your garden. The planting around your home will be designed to provide food and shelter for insects and birds throughout the year.

In some circumstances, you may have a bat roost on the external wall of your home or in nearby trees. The development may also have a water body designed to hold rainwater runoff. This is known as a SuDs or sustainable drainage system. It may be planted to help nature find a home by the water.

Measures for birds

4. What is a nest brick?

A picture of a nest brick is shown below. Your home is most likely to be installed with a 'universal' nest brick like the one shown below. Universal' means a larger nest entrance providing opportunities for a range of bird species including swifts. The nest brick sits in the cavity of the wall and is fully sealed at the back.

5. Where will the nest brick be?

Integrated nest bricks are carefully installed in locations away from windows and doors and should not create any problems for homeowners. Nest bricks for swifts are typically located high up on the gable end of a home or under the roof verge. You will only be able to see a tiny hole in the brickwork or render of your home. This is the entrance the birds will use.

Nest bricks for other birds, such as sparrows, may be located lower down, for instance, on a garage. Location, number, distribution and types of nest bricks will be decided based on ecological advice.

6. Why do some homes have more than one nest brick and some have none?

The Homes for Nature commitment requires new residential developments to have an integral nest brick for every new home built. In practice, this means that some homes could receive more than one box, while others might contain none, as some locations will be more suitable for nest bricks than others.

7. Can birds get into my house?

No. The integrated brick is entirely sealed so there is no way for birds or insects to get into your home.

8. Will the birds make a mess?

Nest bricks and boxes do not damage property. There is little, if any, mess from most cavity nesting birds. Nest bricks will be placed in locations away from windows and doors as an extra precaution. Starling are red-listed birds and can sometimes be 'messy', but this can be overcome by carefully placing nest bricks, eg, on gable ends with no windows and grass below.

9. Will there be any noise?

Integrated nest bricks will be sited to ensure that noise from nesting birds cannot be heard within the house. They are encased within the walls, surrounded by the brickwork and removed from the inside of the house by the inner leaf brickwork, insulation and the cavity wall. Nesting will only occur in spring and summer.

10. Why do nest bricks need to be installed on homes rather than garages and trees?

Nest bricks for some species such as house sparrows can be installed on garages. However most garages



House Sparrow using a Manthorpe Brick. John Day, RSPB

are too low for species such as swifts. Nest bricks for swifts need to be sited at least 4.5m to allow swifts to swoop down as they leave their nest.

11. Do I have to do anything?

There is nothing that you need to do. Integral nest bricks do not require any maintenance. However, if you are lucky enough to get swifts nesting in your swift brick, you may wish to report that they are nesting on the Swift mapper app.

12. What is Swift mapper?

Swift Mapper is an app that you can use to report sightings of swifts and active nests established by swifts. You can find out more about the app $here^{12}$.

13. What else can I do for nesting birds?

You could consider putting more nest boxes around your garden if you have suitable locations away from predators and intense sunlight. Click <u>For information</u>¹³ on nest boxes and where to locate them.

If you want to attract birds to your garden, consider putting up bird feeders. Remember that providing plants that support insects will also help support birds by creating a food supply for them.

14. What if I don't want a nest brick?

Please consider the value you can bring to your family and community by helping nature. If you are certain that you do not want a nest brick, you may be able to choose a plot on the development which does not have a brick installed. Homes that are most suitable in terms of location and orientation have been selected by our ecologists and the measures must be installed in the locations agreed with planners.

Examples of measures for nature around the home



15. Can I remove it or block it?

Integral nest bricks are the same shape and size as a brick and are integrated into the fabric of the building. They cannot be removed.

Nesting birds (along with bats and bat roosts) are protected by law. Removal or blocking of any nesting or roosting provision may cause harm and be illegal. If work is required, professional advice should be sought. No action should be taken whilst there is any risk of birds using the nest brick.

16. What if I need to have work done on my property?

If work is being carried out near or affecting any measures, inform the contractor that it is there and its purpose. Advise them not to remove or disrupt it; if they have to, then ensure they review technical guidance before carrying out the work.

- For the nest bricks refer to BS 42021 for technical information.
- The British Hedgehog Preservation Society can be contacted for advice and guidance on 01584 890 801.

Hedgehogs

1. What is a hedgehog highway or hole?

A hedgehog hole is a small gap (13cm x 13cm) at the base of your garden fence, which allows hedgehogs to pass through gardens and open spaces, searching for food, shelter and other hedgehogs.



2. What do I need to do?

Nothing. Just leave the hole and look out for hedgehogs in your garden. Make sure the hole doesn't accidentally become blocked by garden furniture, pots or impenetrable vegetation. You don't need to do anything else.

3. What else can I do to help hedgehogs?

Avoid using pesticides and slug pellets. Always check for hedgehogs before strimming, mowing and moving brash or log piles. You may wish to provide a hedgehog house if you have a suitable location. For details on how to provide a suitable hedgehog house <u>click here.</u>¹⁴

4. What if I need to block up the hole?

Some people are concerned about pets escaping. Hedgehog holes are big enough for all hedgehogs to pass through but only the smallest of pets. If you feel you must make changes to the hedgehog hole, please consider if this is really necessary and only block holes when you are certain there are no hedgehogs that could become trapped in your garden. You could consider blocking the hole during the day but unblocking it at night to allow hedgehogs through.



Adult Hedgehog with hoglet

Insect and bee bricks

Insects are the foundations of our ecosystems. In addition to pollinating food, they are a food source for many other creatures. Sadly, insect populations, including bees and butterflies, have declined in diversity and numbers due to the use of pesticides, pollution, habitat loss and climate change. We want to give pollinators a boost in our communities by planting crops that provide food for pollinators of all types.

1. What is an insect brick?

An insect brick is a traditional brick with different size holes which solitary bees and other insects can use to lay eggs in ready for emergence in spring. Other insects may use the bricks for shelter.

2. What do I need to do?

There are different opinions on whether bee bricks should be cleaned or not. If you choose to clean your brick, wait until the end of the season when the nest is empty around the end of September or October time, and avoid the use of chemicals.



Bug hotel among Iris

3. Can insects get into my home?

No. Bricks will typically be placed in garage and garden walls, but all bricks are fully sealed at the back preventing insects from entering a building where insect bricks are installed.

4. Will I get wasps or large bee colonies?

Solitary bees, which are harmless to people, are likely to use your insect brick. The bricks are not designed to attract wasps or bee colonies. Wasps are attracted to sweet foods and drinks and brightly coloured clothing – so these are the things to avoid to keep wasps at bay.

5. What else can I do to help pollinators?

Providing food in the form of nectar rich plants throughout the year is one of the best things you can do to help pollinators and other insects. The links below will help you identify plants you could select to create a beautiful garden and help insects at the same time.

https://www.rhs.org.uk/science/conservationbiodiversity/wildlife/plants-for-pollinators Bumblebee Conservation 'Bee Kind Flower Finder'¹⁵

A useful selection of plants which provide nectar across the seasons can be found at :(Source: <u>https://</u><u>www.wildlifetrusts.org/actions/best-plants-bees-and-pollinators</u>)¹⁶



Leafcutting bee (genus Megachile)

Appendix 4 – Detailed guidance for Starling and House Martin

Both Starling and House Martin populations have declined significantly resulting in red-list status for both. These species can both thrive in externally mounted (rather than integral) nest boxes and so further detail has been provided here. Starling and occasionally House Martin may use an integral nest brick.

Starling

On occasion integral boxes for Starling is not practical and can be compensated by suitably located external nest boxes within the public realm.

Boxes can be located on mature trees in proximity of short amenity grassland such as a playing field, ideally with nearby summer fruiting plants such as Cherry Prunus spp, Elder Sambucus nigra, and Shadbush Amelanchier Lamarkii.

The box is about 1/3 larger than conventional sizes and should have a front of 250mm and a back of 300mm deep. The bottom of the 45mm entrance hole should be no less than 150mm from the base of the box. Boxes should face east and be positioned at least 3m to 4m above ground, high enough to avoid disturbance. Starling is loosely colonial, and a suggested 1 box/0.05ha density could be applied. See further resources.

House Martin

This species has declined steeply in recent years and is now Red listed as a Bird of Conservation Concern. They build distinctive mud nests beneath the eaves of houses and can be attracted by fitting replica nests. Nest cups can be purchased singly or as a pair. House Martin are colonial and ideally installing 1 or two paired cups alongside each other beneath the eaves is recommended. See resources for suppliers.

House Martin do mess beneath their nests and advice given is to fit a shelf 1cm beneath the nest to catch droppings. This can be taken down at the end of the season and cleaned. However, a simpler solution for new housing is to locate nests above the roof of a bay window, porch or garage. Each time it rains this would naturally clean any mess from the roof. Nests should be clustered near to SuDs ponds where birds can feed and gather mud to modify their nest.



House Martin (Delichon urbicum)

Appendix 5 – Planting guidance

Invasive Non-Native Plants

Where possible, native plants should be used. It is recognised this may not always be possible or realistic, and some common, non-native garden favourites can benefit some wildlife (e.g. by prolonging the availability of nectar to insects).

While most non-native plants used in gardens and urban landscapes pose no current threat to our wider environment, several popular garden varieties, such as Buddleia and the Cotoneasters are raising concerns and no longer considered suitable for planting despite their use as sources of nectar and berries.

Plants to avoid

The following table combines the list of invasive plants included in Schedule 9 of the Wildlife and Countryside Act 1981 and those included on the Natural England Horizon Scanning list and identified as being of critical risk.

What is Schedule 9?

Schedule 9, Section 14A (2) of the Wildlife and Countryside Act 1981, refers to Plants, specifically those listed on Part 2 of the Schedule, whereby it is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on those Schedules and after April 2014 it became illegal to sell five invasive nonnative aquatic plants.

What is the Horizon Scanning list?

In May 2008, the GB Strategy for Invasive Non-Native Species (INNS) was launched. The outcome of this work was the publication of a report listing potential new invasive non-native plant species in Great Britain using existing information on INNS. These might be species already here but not established or species that have yet to arrive. A total of 599 non-native plants were assessed.

The Horizon plant species listed here are those only considered a Critical risk (90 species) of being or becoming invasive and a threat to the environment. It is not the complete list of species assessed.



Although attractive to pollinators, the Buddleia seeds prolifically to become highly invasive of habitats and damaging to building structure. John Day, RSPB

Invasive plant list

Key to superscripts: Schedule 9: England and Wales (1), Scotland (2), Northern Ireland (3), Horizon scanning list (H) Plants frequently listed in planting schedules.

Botanic name	Common name
Acaena inermis	Purple sheep's burr3
Acaena microphylla	New Zealand bur3
Acaena novae-zelandiae	Pirri-pirri-bur3, H
Acaena ovalifolia	Two-spined acaena3
Ailanthus altissima	Tree-of-heavenH
Allium paradoxum	Few-flowered garlic1,2,3
Allium triquetrum	Three-cornered Garlic1, H
Arundo donax	Giant Reed3
Azolla caroliniana	Carolina Mosquito FernH
Azolla filiculoides	Water Fern1,2,3, H
Buddleja (all varieties)	Butterfly-bushH
Buddleja davidii	Butterfly-bushH
Cabomba caroliniana	Carolina W ater-shield1,2,3, H
Cardamine raphanifolia	Greater CuckooflowerH
Carpobrotus edulis	Hottentot fig1,2,3
Chamaecyparis lawsoniana	Lawson's CypressH
Cortaderia richardii	Early Pampas-grassH
Cotoneaster – all varieties	
Cotoneaster bullatus	Hollyberry Cotoneaster1, H
Cotoneaster conspicuus x dammeri (C. x suecicus)	Swedish CotoneasterH
Cotoneaster dammeri	Bearberry CotoneasterH
Cotoneaster dielsianus	Diels' CotoneasterH

Botanic name	Common name
Cotoneaster frigidus x salicifolius (C. x watereri)	Tree CotoneasterH
Cotoneaster hjelmqvistii	Hjelmqvist's CotoneasterH
Cotoneaster horizontalis	Wall Cotoneaster1, H
Cotoneaster integrifolius	Entire-leaved cotoneaster1
Cotoneaster lacteus	Late CotoneasterH
Cotoneaster microphyllus agg. Of 12 spp	Small-leaved Cotoneasters1, H
Cotoneaster prostratus	Procumbent CotoneasterH
Cotoneaster rehderi	Bullate CotoneasterH
Cotoneaster salicifolius	Willow-leaved CotoneasterH
Cotoneaster simonsii	Himalayan Cotoneaster1, H
Cotoneaster sternianus	Stern's CotoneasterH
Crassula helmsii	Aus. Stonecrop/N Zeal Pigm yweed1,2,3, H
Crocosmia pottsii	Crocosmia paniculate Aunt ElizaH
Crocosmia x crocosmiiflora (C. aurea x C. pottsii)	Pott's Montbretia1,H
Cyperus eragrostis	Pale GalingaleH
Disphyma crassifolium	Purple dewplant1, H
Egeria densa	Large-flowered W aterweed3, H
Eichhornia crassipes	Water Hyacinth1,2,
Elodea callitrichoides	South American W aterweed1,3, H
Elodea canadensis	Canadian pondweed1,3, H

Invasive plant list

Key to superscripts: Schedule 9: England and Wales (1), Scotland (2), Northern Ireland (3), Horizon scanning list (H) Plants frequently listed in planting schedules.

Botanic name	Common name
Elodea nuttalli	Nuttall's W aterweed1,3, H
Elodea spp	all species of Elodea1,3
Equisetum scirpoides	Dwarf HorsetailH
Euphorbia amygdaloides subsp. robbiae	Wood spurgeH
Fallopia baldschuanica	Russian vineH
Fallopia japonica x sachalinensis (F. x bohemica)	Conolly's knotweed1,3, H
Fallopia japonica	Japanese knotweed1,2,3
Fallopia sachalinensis	Giant knotweed1,2,3
Fallopia spp	all species of Fallopia3
Gaultheria shallon	Shallon2
Glossostigma diandrum	Spoon-leaf mud-matH
Gunnera tinctoria	Giant-rhubarb1,3
Hedera colchica	Persian IvyH
Heracleum mantegazzianum	Giant hogweed1,2,3
Hippophae rhamnoides	Sea buckthorn3
Houttuynia cordata	Lizard TailH
Hyacinthoides hispanica	Spanish Bluebell3 H,
Hydrocotyle ranunculoides	Floating Pennywort1,2,3, H
Hydrocotyle sibthorpioides	Lawn MarshpennywortH
Impatiens glandulifera	Himalayan balsam1,3
Juncus ensifolius	Swordleaf RushH
Lagarosiphon major	Curly W aterweed1,2,3, H

Botanic name	Common name
Lagarosiphon muscoides	Oxygen weedH
Lamiastrum galeobdolon subsp argentatum	Variegated Yellow Archangel1, H
Ligustrum ovalifolium	Garden PrivetH
Limnobium spongia	American SpongeplantH
Lonicera japonica	Japanese Honeysuckle3, H
Lonicera nitida	Wilson's HoneysuckleH
Ludwigia species ALL species	Water Primrose1,3,H All Species
Lysichiton americanus	American Skunk-Cabbage3
Micranthemum umbrosum	Shade MudflowerH
Myriophyllum aquaticum	Parrot's-feather1,2,3, H
Myriophyllum elatinoides	New Zealand WatermilfoilH
Nymphoides peltata	Fringed water lily3
Oenanthe javanica 'Flamingo' (v)	Japanese parsley, Chinese celeryH
Orontium aquaticum	Golden ClubH
Parthenocissus inserta	False Virginia-creeper1
Parthenocissus quinquefolia	Virginia-creeper1
Peltandra virginica	Green Arrow ArumH
Persicaria campanulata	Lesser knotweedH
Persicaria wallichii	Himalayan knotweed3, H
Petasites japonicus	Giant ButterburH
Picea sitchensis	Sitka SpruceH
Pinus nigra	Austrian pine, Corsican pine, Black pineH

Invasive plant list

Key to superscripts: Schedule 9: England and Wales (1), Scotland (2), Northern Ireland (3), Horizon scanning list (H) Plants frequently listed in planting schedules.

Botanic name	Common name
Pistia stratiotes	Water lettuce1,2,3
Polygonum perfoliatum	Mile-a-minute weed3
Prunus lusitanica	Portugal LaurelH
Pseudosasa japonica	Arrow BambooH
Pyracantha coccinea	FirethornH
Pyracantha rogersiana	Asian FirethornH
Quercus cerris	Turkey OakH
Quercus ilex	Evergreen OakH
Quercus rubra	Red OakH
Rhododendron luteum	Yellow Azalea1
Rhododendron ponticum x R. maximum	Rhododendron hybrid1, H
Rhododendron ALL Species	Rhododendron1, H ALL Species
Ribes odoratum	Buffalo CurrantH
Robinia pseudoacacia	False acacia2, H
Rosa multiflora	Many-flowered RoseH
Rosa rugosa	Japanese rose1, H
Rotala rotundifolia	Roundleaf toothcupH
Rubus cockburnianus	White-stemmed BrambleH
Rubus spectabilis	Salmonberry3
Rubus tricolor	Chinese BrambleH
Sagittaria latifolia	Duck-potato1, H
Sagittaria sagittifolia ssp. Leucopetala	Chinese arrowheadH

Botanic name	Common name
Salvinia molesta	Giant Salvinia1,2,3
Sasa palmata	Broad-leaved BambooH
Sasaella ramosa	Hairy bambooH
Saururus cernuus	Lizards TailH
Smyrnium perfoliatum	Perforate alexanders1,2
Sorbaria sorbifolia	Sorbaria, false spiraeaH
Stratiotes aloides	Water soldier3
Trapa natans	Water Chestnut3
Typha gracilis	Slender CattailH
Typha laxmannii	Laxman's bulrushH
Typha minima	Dwarf bulrushH
Yushania anceps	Indian Fountain-bambooH

Appendix 6 – Further Resources page

Integral nest bricks

https://actionforswifts.blogspot.com/p/swift-bricks. html

https://standardsdevelopment.bsigroup.com/ projects/2017-03102#/section

Hedgehogs

https://www.hedgehogstreet.org/

Planting for pollinators

https://www.rhs.org.uk/science/conservationbiodiversity/wildlife/plants-for-pollinators Bumblebee Conservation 'Bee Kind Flower Finder'

A useful selection of plants which provide nectar across the seasons can be found at : (Source: <u>https://</u><u>www.wildlifetrusts.org/actions/best-plants-bees-and-</u><u>pollinators</u>)

Bats

https://www.bats.org.uk/

Swifts

Several useful and important documents about Swift brick products, Universal Nest Bricks, Solutions for External Wall Insulation and more can be found and downloaded free from this web page: <u>www.</u> actionforswifts.com

Public perception to integral nest bricks: <u>https://</u> actionforswifts.blogspot.com/2018/06/the-attitudes-ofhousing-occupants-to.html

Attracting Swifts to nest: Swift Callers - <u>https://www.</u> peakboxes.co.uk/post/attracting-swifts-sound-systems Reporting sightings, nests and nest boxes: Swift Mapper

- https://www.swiftmapper.org.uk/

Starling

Nest box: <u>https://shopping.rspb.org.uk/bird-feeders-</u> boxes-tables/bird-houses-nest-boxes/apex-starlingnestbox.html

House Martin

Double nest cups: <u>https://www.birdfood.co.uk/</u> woodstone-house-martin-nest-double

Robin, Wagtail and Flycatcher

Nest boxes: <u>https://shopping.rspb.org.uk/bird-feeders-</u> boxes-tables/bird-houses-nest-boxes/apex-open-frontnestbox.html

Swallow

Nest box: https://shopping.rspb.org.uk/bird-feedersboxes-tables/bird-houses-nest-boxes/swallowsterracotta-nest-box.html

Kestrel

Nest box: <u>https://shopping.rspb.org.uk/bird-feeders-</u> boxes-tables/bird-houses-nest-boxes/kestrel-nest-box. <u>html</u>

Barn Owl

Nest box: <u>https://shopping.rspb.org.uk/bird-feeders-</u> boxes-tables/bird-houses-nest-boxes/barn-owl-nestbox. html

https://www.barnowltrust.org.uk/barn-owl-nestbox/

Plant lists

https://www.nature.scot/doc/guidance-pollinatorsplanning-and-construction-guide

https://www.rhs.org.uk/science/conservationbiodiversity/wildlife/plants-for-pollinators

https://beekind.bumblebeeconservation.org/

Sustainable Drainage Systems (SuDs)

https://www.ciria.org/CIRIA/CIRIA/Item_Detail. aspx?iProductCode=C753

Modular SuDS planters, tree pits and root barriers:

https://greenblue.com/gb/

 British Standard BS42021:2022 Integral nest Boxes. Selection and instillation for new developments. Specification

https://knowledge.bsigroup.com/products/integral-nestboxes-selection-and-installation-for-new-developmentsspecification-1?version=standard

 RSPB/WWT Sustainable drainage systems, Maximising the potential for people and wildlife - A guide for local authorities and developers

https://www.wwt.org.uk/uploads/documents/2019-07-22/1563785657-wwt-rspb-sustainable-drainagesystems-guide.pdf

 NHBC Foundation/RSPB Biodiversity in new housing developments

https://www.nhbc.co.uk/foundation/biodiversity-in-newhousing-developments

Appendix 7 – The Inclusion of Apartments

7.1 How to integrate the nature measure commitments into apartment developments

Initially, the Homes for Nature commitment didn't include apartments when launched in September 2024. This was due to the commitment's 'one brickto-one plot' ratio starting point, which is suited to low-rise housing. Now that the commitment is up and running, signatories have requested that apartments be included. This additional appendix provides guidance for apartments, bringing them into the commitment as a voluntary measure for the remainder of the commitment term.

There are a number of terms used for integral nest bricks. For consistency and clarity, all references in this document to 'nest bricks' mean universal integral nest bricks, which can be used by multiple species, including swifts. Using universal nest bricks also means that only one type of box is required, simplifying procurement and installation processes.

The existing measures applied to apartments:

Many of the measures can be included in apartment developments as they currently stand and reported on in the same way as low rise. It is only the mandatory nest brick measure that will be measured and reported differently for apartment developments.

7.1.1 Mandatory measures (unchanged)

Hedgehog highways – these are by development, so they can be included and reported on in the same way as low-rise schemes. Many developments have landscaped public realms where hedgehog routes can be considered to ensure the scheme does not block these off. Ground floor apartments often also have external private space, so if there is no landscaped communal route through the scheme, then hedgehog highways should be considered as they would for a low-rise scheme.

Nature-friendly planting - Most apartment schemes will have external landscaping in the public realm, so nature-friendly planting can be included and reported in the same way as low-rise schemes.

7.1.2 Voluntary measures (unchanged)

SuDs - Although the design of the SuDs may differ from low-rise schemes and be a more bespoke-engineered solution, apartment buildings should also aim to include SuDs in their designs and reporting. They are reported by development, so they can be included and reported on in the same way as low-rise schemes.

Insect bricks - These could be included in any separate communal buildings within the development or retaining/party walls. Apartment developments also have communal gardens that can include bee and bug hotels and Hibernacula in the same way as low rise, providing they are within 50m of nectar-rich pollinator planting. These measures are by development, so they can be included and reported on in the same way as lowrise schemes.

Bats - The ecologist should advise on the provision for bats on a scheme-by- scheme basis. Bat bricks

are available; however, these must comply with the non-combustible regulation requirements for external walls for high-rise buildings. Bat measures are by development, so they can be included and reported on in the same way as low-rise schemes.



7.2 Nest brick measures for apartments

Number per apartment block As per BS42021, the suggested number of bricks to be installed:

- Small apartment blocks 4-10 nest bricks
- Larger apartment blocks 10-40 nest bricks

Those numbers are purely suggestions and as many as you can locate sensibly on the block can be aimed for; because species such as swifts like to have neighbours more is preferable.

The British Standard BS42021 may be purchased here:

https://knowledge.bsigroup.com/products/ integral-nest-boxes-selection-and-installation-fornew-developments-specification-1

7.3 Where to locate them

General advice on where to locate the bricks is listed below. However, due to the bespoke and complex nature of these developments, it will be necessary to request they be set out on the facade package construction drawings in line with the project's specific ecological advice.

1. Swift bricks to be positioned as high as possible on the building, a minimum of a clear 5 meters high

- For universal bird bricks a height of between 3-6 (up to 10) meters is more suitable on very tall buildings so a two-tiered approach could be adopted
- **3.** Positioned where Swifts can have a direct flight in and out of the nest brick
- **4.** Locate in shaded areas preferable, and not in areas that get full sun
- **5.** Locate away from residents reach from balconies and windows
- **6.** Locate away from MVHR, Heat Pump or other ventilation ducts/bricks within the facade
- **7.** Consider locating near to, but not obstructed by, cradle or abseil drop points for maintenance.
- 8. Swifts do not mind dense urban areas or living close to roads or railways. However, if universal bricks are installed, a collision risk is more likely, so these are better located away from busy areas such as roads and railways. Other species would also benefit from being located on walls adjacent to the communal gardens or wider local green space.
- For spacing and general installation advice, please refer to the main guidance document published in October 2024.

Please note the British Standard does not cover installation of:

- Integral nest boxes in buildings where the surface is primarily glass, as glass surfaces present wellknown and fatal hazards for birds, or in metalframed buildings with any form of insulated or fire-rated cladding; and
- Exterior bird boxes.

7.4 Building Regulations

Apartment buildings, depending on their height, have more stringent Building Control requirements for external walls. Care must be taken to specify a brick product that is fully non-combustible and complies with the required building regulations and British standards for these buildings.



Action for Swifts - S Brick

7.3 Where to locate them

Numbers correspond with location advice numbered bullet points on previous page



Example area only - not extensive

Endnotes

- 1 https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf
- 2 https://www.rspb.org.uk/helping-nature/so-many-ways/explore/welcome-the-wildlife
- 3 It is important to note the RHS and Bumblebee databases, do list some invasive species which should be avoided. For guidance on invasive species please see appendices.
- 4 (Roberts, S. (2017). The attitudes of housing occupants to integral bird and bat boxes. Unpublished MSc thesis, University of Gloucestershire.)
- 5 CIRIA SuDs Manual (Woods Ballard, B, Wilson, S, Udale-Clarke, H, Illman, S, Scott, T, Ashley, R, Kellagher, R, CIRIA, 2015)
- 6 https://www.bats.org.uk/advice/im-concerned-about-bats/development-concerns/bats-and-the-law
- 7 https://www.bats.org.uk/advice/gardening-for-bats
- 8 https://www.bats.org.uk/advice/im-concerned-about-bats/development-concerns/bats-and-the-law
- 9 https://www.bats.org.uk/our-work/buildings-planning-and-development/roost-replacement-and-enhancement/partnerships
- 10 https://www.bats.org.uk/our-work/national-bat-monitoring-programme/getting-started/sunset-survey
- 11 http://www.bats.org.uk/
- 12 https://www.swiftmapper.org.uk/
- 13 https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds/buying-nest-box
- 14 https://www.hedgehogstreet.org/help-hedgehogs/hedgehog-homes/
- 15 https://beekind.bumblebeeconservation.org/home
- 16 https://www.wildlifetrusts.org/actions/best-plants-bees-and-pollinators

Images by pixabay.com and pexels.com



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