London Borough of Richmond upon Thames Local Plan

Biodiversity

Supplementary Planning Document

Draft for Consultation February 2026

LONDON BOROUGH OF
RICHMOND UPON THAMES

Richmond Draft Biodiversity SPD

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1 Introduction

Purpose of the Biodiversity SPD

1.1 The Biodiversity Supplementary Planning Document (SPD) sets out the Council's requirements and guidance in relation to addressing biodiversity through development. The purpose of this document is to provide additional advice to those seeking planning permission for a proposal, to explain what you need to do, what should be addressed, what needs to be provided and when.

1.2 The SPD supports the implementation of the policies of the adopted Richmond Local Plan 2025 and is a material consideration in determining planning applications.

1.3 This SPD sets out detail about important habitats and species in the borough and how applicants can protect and enhance the borough's biodiversity throughout the development process. While some guidance regarding Biodiversity Net Gain (BNG) is provided, more information is available on the Council's web pages which will be kept up-to-date in line with legislation, government policy and guidance.

What is biodiversity and why is it important?

1.4 Biodiversity, or biological diversity, refers to the variety of life on Earth in all its forms, including plants, animals, and fungi. It encompasses the living organisms, the genetic differences among them, and the communities in which they exist. Biodiversity is essential for the processes that support all life, including humans. It provides benefits to us all through the production of air, food, water, timber, medicines, and by the regulation of floods. Spending time in nature is also increasingly understood to lead to improvements in people's physical and mental health. Biodiversity, including the wider ecological and green infrastructure networks, plays a crucial role helping us to adapt to the effects of climate change.

Legal context

1.5 The Council, developers, landowners and others involved in the planning process have various legal duties in relation to biodiversity, whilst legislation also provides for specific protections for certain important habitats and species. Please see Appendix 1: Ecological Legislation for more detailed information on ecological legislation.

Policy context

1.6 The National Planning Policy Framework (NPPF 2024) provides a framework within which locally-prepared plans can provide for housing and other development in a sustainable manner and is a material consideration to be taken into account when planning applications are determined. Section 15 is particularly relevant within which paragraph 193 sets out how planning authorities should deal with biodiversity when considering planning applications, including the application of the Mitigation Hierarchy. The National Planning Policy Guidance (PPG) supports the NPPF and its implementation.

1.7 Policy G6 of the London Plan (2021) sets out regional policy. The Greater London Authority (GLA) is also responsible for producing the LNRS for London, which along with an accompanying spatial habitat map is currently being produced in collaboration with all London Boroughs. The LNRS can inform plan making and is an evidence base which contains information that may be a 'material consideration' in the planning system, especially where development plan documents for an area pre-date Local Nature Recovery Strategy publication.

1.8 Key policies relating to biodiversity in the adopted Local Plan 2025 include Policies 34 (Green and Blue Infrastructure). 38 (Urban Greening), 39 (Biodiversity & Geodiversity), 40 (Rivers and River Corridors), 42 (Trees, Woodland and Landscape), and 43 (Flood Lighting and Other External Lighting). There are a number of other relevant policies including Policies 3, 8, 15, 16, 19, 28, 32, 35, 36, 37, 41, and 52-54 which cover issues such as tackling climate change, flood risk, infill and backland development and small sites, protected open land and public open space designations and policy on basements.

1.9 Natural England's guidance (standing advice), 'Protected species and development: advice for local planning authorities' provides details on how planning applications should be assessed when there are protected species on or near a development site. Natural England are able to object to planning applications that are likely to harm protected species and can provide further advice on protected species affected by

development. Links are provided below to identify where (habitats, buildings or land) protected species are likely to be present.

1.10 Advice on when wildlife licences are required can be found here.

1.11 Species Action Plans and Biodiversity Action Plans were developed by the London Biodiversity Partnership as part of the London Biodiversity Action Plan and can be viewed here.

Protected Sites

1.12 Several sites of significance to biodiversity have been identified within and bordering the borough, ranging from international statutory designations to local non-statutory designations. Please see the adopted Local Plan policies map which displays the locations of the borough's World Heritage Site at Kew, Sites of Special Scientific Interest (SSSIs) and Sites of Importance for Nature Conservation (SINCs), and can be searched via the interactive version to see what designations apply in any location. The map below also shows National Nature Reserves, Local Nature Reserves and Ramsar sites (beyond borough boundary). For interactive maps showing designations please also see the following websites: Magic & Greenspace Information for Greater London CIC (GiGL).

1.13 Richmond Park is (partly or wholly) designated as a Special Areas of Conservation (SACs), SSSI, National Nature Reserve and SINC.

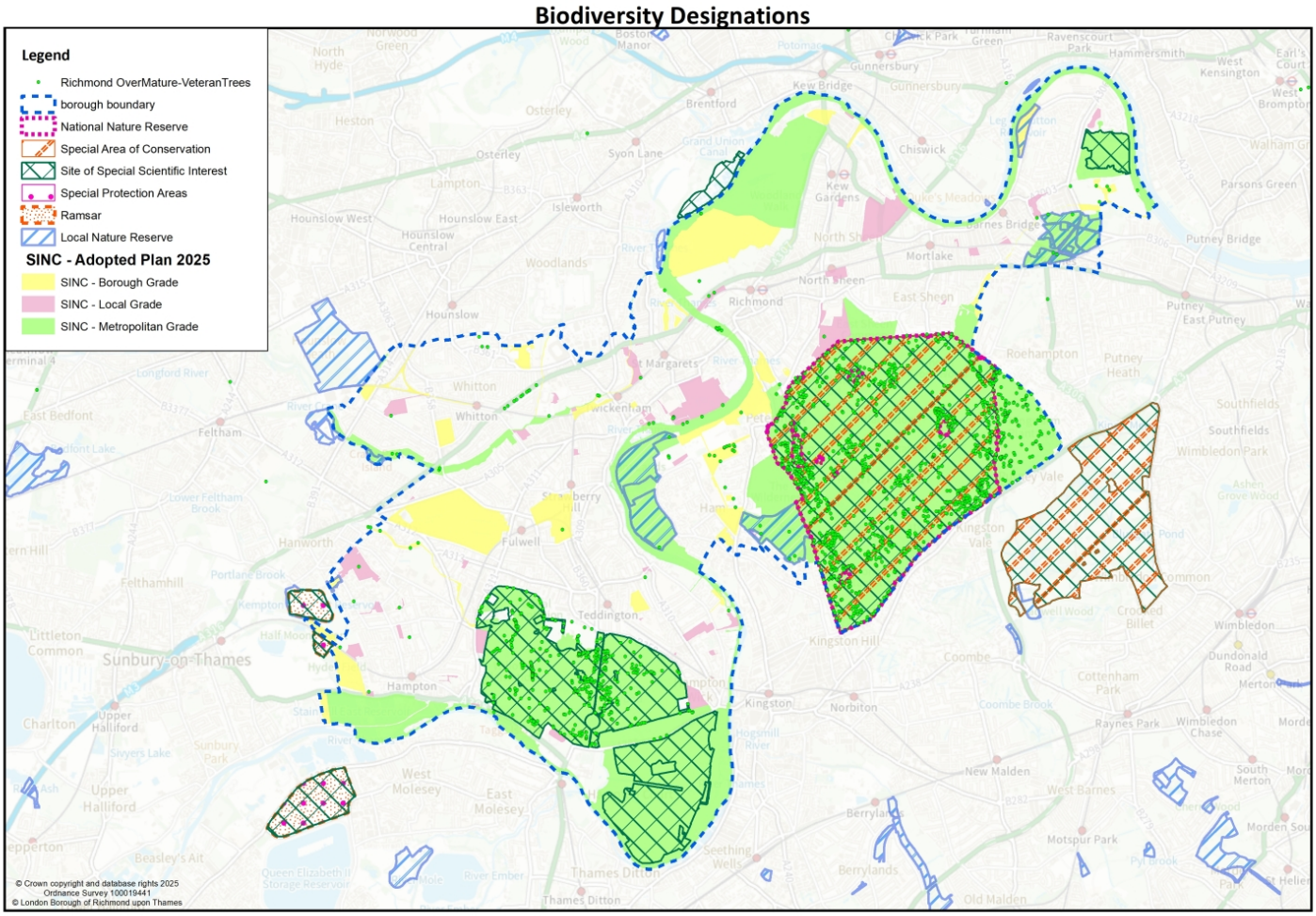
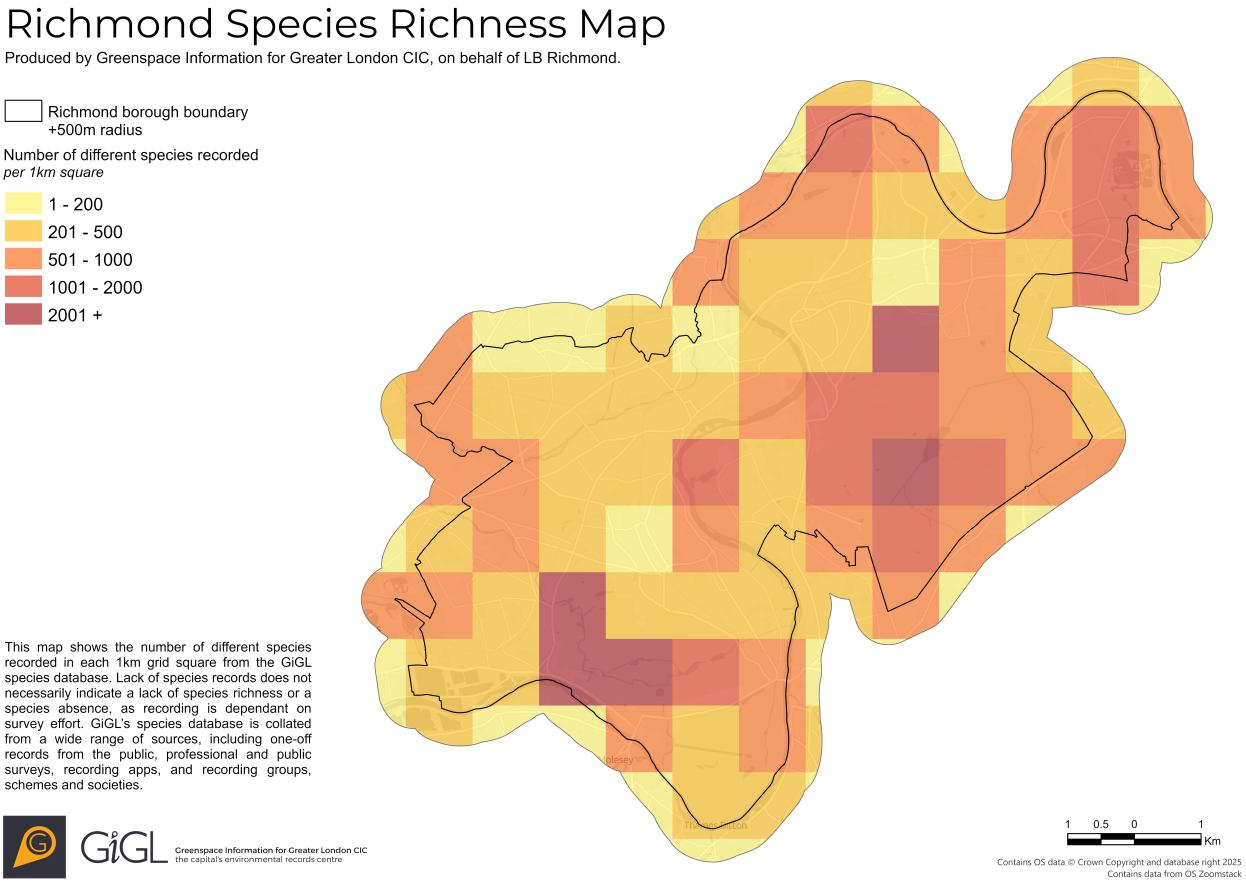


Figure 1 - Biodiversity designations in Richmond upon Thames



Heatmaps kindly provided by GiGL (2025)

1.14 Other related Council strategies include:

- A Climate & Nature Strategy (2025 – 2030) has been published by the Council in July 2025, along with the Richmond Climate Action Plan.
- Tree Policy2023 and Trees for Richmond (2025)
- Nature Conservation Statement 2019

1.15 Other related strategies and plans include:

- The 2025 Richmond Biodiversity Action Plan (RBAP) sets out a framework to conserve, protect, and enhance the rich variety of habitats and species within the borough.
- Thames Landscape Strategy– Tidal Thames and Maidenhead to Teddington catchments.
- Lower Crane Valley Environmental Management Plan January 2024 – December 2028 - a management plan to influence the restoration and maintenance of the Lower Crane Environment.

2 General Guidance for Applicants

British Standards

2.1 All applicants, developers or ecologists acting on behalf of applicants are encouraged to apply the British Standards relevant to biodiversity when designing and implementing developments.

- British Standard on Biodiversity (BS 42020:2013) – 'A Code of Practice for Planning and Development' and
- British Standard on Biodiversity Net Gain (BS 8683) – A process for designing and implementing biodiversity net gain

2.2 British Standards can be purchased from www.bsigroup.com/Shop. Applicants are advised to ensure they use the most recent version at the time of scheme development.

Professional advice

2.3 Surveying and assessing the likely ecological impacts of a development is often complicated, requiring specialist skills and experience, and it is therefore recommended that professional ecological expertise is commissioned. Employing a suitably experienced and qualified ecological consultant can help to avoid potentially costly delays at a later date and help the application to be determined more efficiently. The Chartered Institute of Ecology and Environmental Management (CIEEM) provides a professional directory of qualified, regulated ecologists.

2.4 The Council reserves the right to refute the findings of ecological reports if it has concerns that they are not robust or accurate, including because they have not been undertaken by a suitably qualified individual.

Data Use and Sharing

2.5 It is both good practice and in line with CIEEM membership regulations that all species and habitat (including habitat condition) survey data gathered during the production of PEAs/EcIAs/Phase 2 surveys and BNG habitat data should be shared with the Local Records Centre. Within London, this is Greenspace Information for Greater London CIC (GIGL). A recording spreadsheet can be found on the GIGL website and records can be emailed straight to submit@gigl.org.uk. Guidance on data standards can also be found on the GIGL website.

2.6 Data sharing should be completed within 3 months of the planning application decision and a confirmation from GIGL should be submitted to the Council to demonstrate compliance. Desk studies of ecology reports and Biodiversity Net Gain (BNG) projects and plans are encouraged to use an up-to-date data search report by GiGL.

3 Guidance for Integrating Biodiversity in Development Proposals

3.1 The following is a detailed list of guidance for how developments, including those which impact important habitats or species, should incorporate biodiversity and the biodiversity mitigation hierarchy into the development process. The need for developments to address the specific requirements within this section will depend on the location, nature and scale of the development proposed. Whilst applicants may find it useful to use this guidance as a starting point, they should have full regard to the requirements of legislation, policy and the Local Validation Checklist when determining how their development will need to address biodiversity.

3.2 Various studies, such as a Primary Ecological Assessment (PEA) (see Appendix 2: Types of Ecological Reports), may be required depending on the specifics of the site and the scale and type of the proposal. If applicants are uncertain whether surveys are required, please contact the Council for advice. The Council offers a chargeable pre-application service. The guidance in this section outlines at what stages of the development proposal potential outputs such as a PEA may be needed. Appendix 2: Types of Ecological Reportsprovides more detailed information about the purpose of ecological studies. If a proposal borders a sensitive site or is likely to impact on natural habitats or species of conservation importance, the Council is likely to require a PEA. This may not always be necessary, for example for a small scale extension to an existing dwelling where there are no potential bat roosts.

Requirements for all developments

This section is not an exhaustive guide, exceptions will exist and be handled on a case-by-case basis, but the guide does establish a standard which the Council expects to be met or built on for all proposals that affect biodiversity. **Biodiversity should be considered a priority and woven into every stage of the development process even if the proposal is exempt from biodiversity net gain.**

- **Local Plan Policy 39 requires all developments to deliver a net gain for biodiversity, through the incorporation of ecological enhancements. The Council expects this requirement to be met.**
- Smaller developments are expected to include commensurate ecological enhancements. All development proposals are expected to contribute to urban greening and where possible protect front and back garden spaces.
- **All** development proposals are required to contribute to urban greening.
- Where BNG is applicable, applicants are expected to deliver **at least** 10% biodiversity net gain and are encouraged to take opportunities to deliver a greater amount of gain, particularly where there are clear opportunities to accommodate greater gains within the design of the proposal.
- All developments should address the Mitigation Hierarchy where planning proposals have the potential to negatively impact wildlife and habitats.

3.3 Figure 2 below highlights the potential outputs and key considerations that apply in relation to biodiversity at each stage of development. Specific guidance on each stage is provided later in this section.

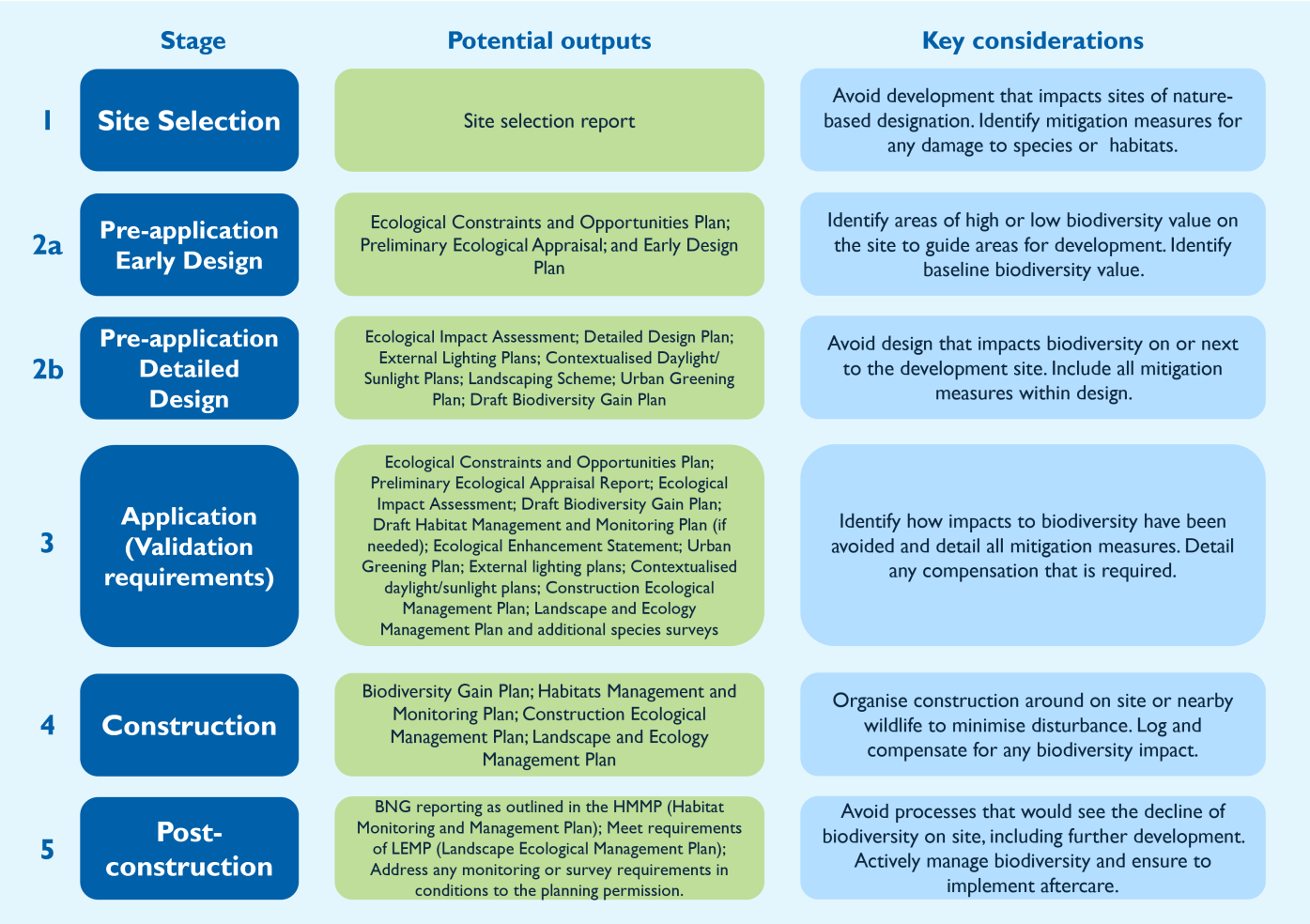


Figure 2 - Stages of Development Management

Types of planning application this guidance can apply to:

- Householder applications (depending on extent of proposals/ecological constraints)
- Applications for Change of Use (depending on nature of proposals)
- Applications for Outline Planning Permission
- Applications for Full Planning Permission
- Reserved Matters applications
- Applications for retrospective Planning Permission (depending on nature of proposals)
- Submission of details
- Variation of conditions

Mitigation Hierarchy

Where planning proposals have the potential to negatively impact wildlife and biodiversity, developers should follow the 'mitigation hierarchy' as set out in Policy 39 part B. The mitigation hierarchy dictates that in order of preference, impacts should be avoided in the first instance, but where impacts cannot be avoided then they should be adequately minimised, then rescued (for example by translocation) and, as a last resort, compensated for.

Policy 39 part C also includes a mitigation hierarchy to be applied to SINCs.

Supporting nature conservation as integral to any development is important in the borough context to maintain the blue and green network and connectivity across the borough. On-site mitigation is the preferred approach for the borough.

Note – the mitigation hierarchy should be addressed whether the proposal is exempt from BNG Net Gain requirements or not.

Avoidance	Can significant harm to biodiversity be avoided? For example, could the development be located on an alternative site with less harmful impacts? The applicant has to demonstrate that there is no alternative proposal with less harmful impacts
Reduce, moderate, minimise	Where significant harm cannot be wholly or partially avoided, can harm be minimised by design or by the use of effective mitigation measures? Mitigation measures could be secured by way of a planning condition.
Rescue	Which could be for example, via translocation.
Compensation	As a last resort, where there would still be significant residual harm can this be properly compensated for and provide for an equivalent or greater value to biodiversity?

Where a development cannot satisfy the requirements of the 'mitigation hierarchy', planning permission should be refused as indicated in the National Planning Policy Framework.

Protected Sites

Where development proposals are on or adjacent to statutory designated sites, the applicant's primary concern must be to avoid harm to the sites' designated ecological attributes and other listed features. Where harm is unavoidable, mitigation and enhancement measures should aim to preserve and improve these ecological attributes and features.

Information on all statutory designated sites in Greater London, including full citations, is available from Greenspace Information for Greater London CIC (GIGL).

Progressing a proposal – what to consider at each stage

Stage 1 – Site Selection (if applicable)

Process	Site selection studies should consider the direct and indirect impacts of a proposal on the immediate and adjacent biodiversity of each site. Studies should **identify nature-based designations** including but not limited to: • Special Areas of Conservation, • Sites of Special Scientific Interest, • Local Nature Reserves, and • Sites of Importance to Nature Conservation. For more detail on biodiversity in the borough, please visit the following web pages - • Biodiversity, • Maps of designations - Magic & Greenspace Information for Greater London CIC. To see if a proposal must meet the validation requirements for biodiversity, please refer to the Local Validation Checklist. It is worth at this stage considering whether a **wildlife licence** may be needed. Natural England administer licences to permit activities that would otherwise be illegal for most Protected Species, including European Protected Species and badgers. Further information on wildlife licences is available from Natural England. **Not all applications will have a site selection process, for example if applying for a householder development, Stages 1, 2a & 2b may be completed concurrently.** However, Stage 1 is arguably the most important stage in the process. Biodiversity should be integral to site selection and early design stages of proposals. This stage provides the opportunity to consider the impact of potential sites on habitats and species and to avoid direct and indirect impacts on irreplaceable habitats. It is also where applicants can begin the process of designing the proposal around site constraints. For example, by locating development on a part of a site to ensure that all trees are retained and protected trees are safeguarded. See also Trees and Development SPD. It is advisable to start considering at this stage how the development will integrate ecological enhancements (Local Plan Policy 39) and green infrastructure and provide for Urban Greening(requirements set out in Local Plan Policy 38 Urban Greening). All developments are expected to contribute to urban greening. Applicants are also encouraged to consider Biodiversity Net Gain (BNG) early in the development process and factor it into site selection and design. Where BNG is applicable, applicants are expected to deliver **at least** 10% biodiversity net gain and are encouraged to take opportunities to deliver a greater amount of gain, particularly where there are clear opportunities to accommodate greater gains within the design of the proposal.
Potential Outputs	• Site selection report
Considerations	Avoidance: Avoid development that would directly or indirectly impact on sites with nature-based designations or is likely to impact on natural habitats or species of conservation importance.

	Reduce, moderate, minimise: If avoidance is not possible impact should be reduced, include in the site selection report any mitigatory measures that could be implemented to reduce and rectify any possible loss or damage to any identified species or habitat connected with any nature-based designations which were captured in the desktop review of each site. Rescue: Will habitat features or species need to be rescued? For example, via translocation. If so, they should be identified, and if relevant start to consider how and where they are to be relocated to. Compensation: If mitigation is not sufficient, consider the additional costs that might be accrued from loss or damage to species or habitat identified on each site.

Table 1: Stage 1 - Site Selection (if applicable)

Stage 2a – Pre-application – Early Design Stage

Process	Where a development is proposed on or affecting a site with nature-based designations or the proposal would impact irreplaceable habitats, protected species or protected habitats, it is advised that the applicant requests pre-application advice via the Council's pre-application advice service. Council officers can advise applicants which studies are needed. Planning Performance Agreements (PPA) are encouraged for larger schemes. However, applications of all types and complexity may benefit from a PPA, including discharge of conditions. During early pre-application discussions, applicants are encouraged to commence any necessary surveys and studies (see list in Potential Outputs). These studies should be drafted alongside early design work to ensure the layout of the site has as little impact on biodiversity as possible. However, applicants should note that the content of the PEA can become out of date and may require updating at the submission stage. Early discussions with the Environment Agency (EA) are encouraged where proposals are in close proximity to a river. It is important to recognise that there are seasonal constraints to surveying some types of species and habitats, and that they can only be surveyed at certain times and months of the year in suitable weather conditions and using nationally recognised standards and methodology. Seasonal constraints therefore need to be factored in when commissioning surveys or ecological assessments and the timeline for developers preparing a planning application. See Appendix 3: Survey requirements and when to do them (Survey calendar). The Council will not accept surveys undertaken during inappropriate surveying windows. All studies should be carried out by a qualified ecologist and the Council strongly recommends applicants engage members of a professional institute to ensure they are robust, for further information see section on Professional advice. Report and studies need to adhere to the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance and BSI 42020. CIEEM offers a useful tool for finding qualified consultants who can assist with studies. All developments are expected to incorporate ecological enhancements. Applicants should also review the Council's guidance on Biodiversity Net Gain (BNG) and Urban Greening. All requirements are expected to be met. Where BNG is applicable, applicants are expected to deliver **at least** 10% biodiversity net gain and are encouraged to take opportunities to deliver a greater amount of gain, particularly where there are clear opportunities to accommodate greater gains within the design of the proposal.

Potential Outputs	• Ecological Constraints and Opportunities Plan (ECOP) • Preliminary Ecological Appraisal (PEA) [Note PEAs are often conducted alongside a Preliminary Roost Assessment (PRA). A PRA alone may be appropriate where impacts are likely to affect only bats and/or breeding birds]. • Early Design Plan For more detail see Appendix 2: Types of Ecological Reports
Considerations	Avoidance: Identify areas within a site which have significant biodiversity through a PEA. This is helpful to understand which areas on a site should be excluded from development. Conversely, identifying areas with little to no biodiversity value is useful for knowing where to concentrate development in the later design stage. Reduce, moderate, minimise: If avoidance is not possible impact should be reduced, capture in more detail the ecological make up of a site to help prepare bespoke mitigation responses which can be incorporated later in the design stage. Rescue: Will habitat features or species need to be rescued? For example, via translocation. If so, they can be identified, and if relevant, so will how and where they are to be relocated to. Compensation: If mitigation is not sufficient, capture the baseline biodiversity value of the site to help understand what compensation may be needed. This baseline should be used to inform layout and design choices.

Table 2: Stage 2a – Pre-application – Early Design Stage

Stage 2b – Pre-application – Detailed Design stage

Process	**For less complex proposals, which require fewer pre-application consultations, the guidance from Stage 2a and Stage 2b may be combined into one stage.** Building on the initial pre-application discussions, the completed ecological studies, and the early design work, applicants should begin preparing a detailed design plan for the site which protects biodiversity and includes 5 Guidance on associated policy and how developments can make ecological enhancements where necessary. It is advised that this detailed plan be discussed with the Council in follow-up pre-application consultation to ensure the design meets Local Plan Policy 39 Biodiversity and Geodiversity and supplementary guidance as well as reflects the discussions already had regarding biodiversity on the site. Once the principles of redevelopment have been established, applicants should consider at this stage how planting (see section on Types of planting) and Lighting, if needed, can be effectively incorporated into the design as well as how the design can integrate with any existing Relationship with Heritage. Examples of effective incorporation and good design include (but are not limited to), providing appropriate buffering between a proposed development and the edge of a biodiversity designation, and consideration of light spill. **All** developments are expected to incorporate ecological enhancements. **All** developments should consider from this stage how urban greening can be integrated into site and building design. Greening features, required as part of the urban greening factor, can provide considerable biodiversity benefits when implemented correctly. For major developments, applicants will be expected to discuss at the pre-application stage(s) what their intentions for urban greening are and if they expect to be unable to provide the required amount. More detail can be found in the section on Urban Greening.

	Even if you think your development is exempt from Biodiversity Net Gain (BNG), applicants are encouraged to complete the Template BNG Statement specifying the reason for the exemption. (A draft Biodiversity Gain Plan should be provided if necessary.) Applicants are reminded that where BNG is applicable, applicants are expected to deliver **at least** 10% biodiversity net gain and are encouraged to take opportunities to deliver a greater amount of gain, particularly where there are clear opportunities to accommodate greater gains within the design of the proposal. The provision of required external amenity space and play space can in some cases be brought forward sensitively to allow for the possible co-location with areas of biodiversity net gain. Applicants should demonstrate clearly how the overlapping of these uses would not lead to one detracting from the other in their submissions (e.g. amenity grassland being used for amenity space, urban greening, and biodiversity net gain). As discussions evolve at pre-application stage, discuss how biodiversity can form a part of other evidence base reports if they are required. A Contaminated Land Assessment or a Daylight and Sunlight Assessments should pay close attention to surrounding habitats and how the proposed development may impact biodiversity. Flood Risk Assessments should clearly demonstrate how existing biodiversity impacts flood resilience and how any change to the biodiversity on a site would impact the flooding potential for the site and surrounding area.
Potential Outputs	[Some outputs may have been produced at earlier stages or may be produced here] • Ecological Impact Assessment (EcIA) • Detailed Design Plan • External lighting plans • Contextualised daylight/sunlight plans • Landscaping Scheme • Urban Greening Plan • Draft Biodiversity Gain Plan (see section on Biodiversity Net Gain (BNG)) • Applicants are encouraged to use the Council's Template BNG Statement. For more detail see Appendix 2: Types of Ecological Reports.
Considerations	Avoidance: Focus development on areas of low biodiversity value and avoid designs that might impact biodiversity on site or adjacent to the site. Reduce, moderate, minimise: If avoidance is not possible, impact should be minimised, All biodiversity mitigation efforts and ecological enhancements should be captured in the detailed design plan (see section Ecological Enhancements for more information). Rescue: Will habitat features or species need to be rescued? For example, via translocation. If so, they can be identified, and if relevant, so will how and where they are to be relocated to. Compensation: If mitigation is not sufficient, calculate the estimated compensation and discuss its appropriateness at pre-application meetings.

Table 3: Stage 2b – Pre-application – Detailed Design stage

Stage 3 – Submission of application – Validation Requirements

Process	At the point of submitting a planning application, applicants are expected to have addressed the guidance contained in Stages 1, Stage 2a and Stage 2b, including any pre-application advice gained within these previous stages. It is preferable that all necessary detailed survey work should be completed prior to submission. Applicants should review the Local Validation Checklist, Appendix 2: Types of Ecological Reports and the Council's website to ensure all steps and guidance in relation to biodiversity (including Biodiversity Net Gain (BNG)) have been taken to complete a valid application: Make a planning application - London Borough of Richmond upon Thames. All applicants are expected to submit an Ecological Enhancement Statement where the development is exempt from BNG and/or does not require a PEA. Please note a statement is not required for householder applications; however, such proposals are still expected to deliver ecological enhancements where feasible. Applicants should ensure all assessments are undertaken in accordance with specified standards by suitably qualified professionals or competent persons (see section on Professional advice).
Potential Outputs	[All outputs from previous stages may be included here (but may need updating)] • **Ecological Constraints & Opportunities Plan (ECOP)** For major development, where an ECOP has been produced at an earlier stage, this is encouraged to be submitted. • **Preliminary Ecological Appraisal Report (PEAR)***[1] *[2] PEAs are often undertaken alongside a Preliminary Roost Assessment (PRA). A PRA alone may be appropriate where impacts are likely to affect only bats and/or breeding birds • **Ecological Impact Assessment (EcIA)***[1] [Where additional surveys beyond the PEA are required, an EcIA must be submitted.] • **Ecological Enhancement Statement** where applicable – See Local Validation Checklist. • External lighting plans • Contextualised daylight/sunlight plans • **Draft Biodiversity Gain Plan** (Applicants are strongly recommended to provide this along with a completed draft Statutory Metric and completed post-development habitat map/ landscape plan (to scale), where applicable) (see section on Biodiversity Net Gain (BNG)). • The Template BNG Statement is encouraged to be completed even if you think your proposal is exempt from BNG • **Draft Habitat Management and Monitoring Plan (HMMP)** (if needed) Recommended for development proposals involving significant on-site enhancements. • Urban Greening Plan • **Construction Ecological Management Plan (CEcMP)** • **Landscape and Ecology Management Plan (LEMP)** and additional species surveys identified in the PEA. *[1]Where a PEA has been produced the Council requests its submission at validation as either a PEAR and/or EcIA.

	*[2] Where additional surveys beyond the PEA are not required, the PEAR will be sufficient for validation. **For more detail see Appendix 2: Types of Ecological Reports. Please see the Council's Local Validation Checklist for details and validation thresholds which govern when documentation is required. Even for applications below the validation threshold, additional information may be requested if it appears that protected species are likely to be present and affected.** Note: There is a legal requirement for any information relating to badgers to remain confidential. This must be submitted as a separate document.
Considerations	Avoidance: Ensure that, through timing and placement, construction causes minimal disturbance to any onsite or nearby wildlife. Reduce, moderate, minimise: If avoidance is not possible, ensure impacts are reduced. All mitigation should be detailed fully in the submission documents. Rescue: Any habitat features or species which are to be rescued should be identified, as will how and where they are to be relocated to. Compensation: Ensure any unexpected impact to biodiversity during construction is logged.

Table 4: Stage 3: Submission of application – Validation Requirements

Stage 4 – Construction (postdetermination)

Process	Prior to commencing construction, applicants must discharge any pre-commencement conditions regarding Biodiversity Net Gain, (including the submission of the final Biodiversity Gain Plan, and if needed a HMMP following the grant of planning permission) as well as any other documentation required by a condition. Licences to undertake works that could affect protected species can be applied for only after planning permission has been granted. Thereafter applicants should ensure good practice is followed during construction, including protected species impact avoidance, and adhere to mitigation and enhancement recommendations, the Construction Environment Management Plan and the Landscape and Ecology Management Plan requirements. See Appendix 4: Biodiversity on Development sites: A hazard prevention checklist during construction and operation.
Potential Outputs	• Biodiversity Gain Plan • Habitats Management and Monitoring Plan (HMMP) • Construction Ecological Management Plan (CEcMP) • Landscape and Ecology Management Plan (LEMP)
Considerations	Avoidance: Organise construction around times and places that are most suitable for on site or nearby wildlife to cause the least amount of disturbance. Reduce, moderate, minimise: Ensure all mitigations are in place as soon and as appropriately as possible. Rescue: Any requirements to translocate species and/or habitat features should be completed before construction in that area begins. Compensation: For any unexpected impact to biodiversity during construction, ensure it is logged, and appropriate compensation is provided.

Table 5: Stage 4 – Construction (postdetermination)

Stage 5 – Post construction

Process	Applicants will be responsible for working with Council officers to ensure processes and commitments are in place for the continued monitoring of BNG improvements over the required 30-year period. Non-compliance may result in enforcement or other legal action. Outside of BNG requirements, developments are encouraged to plan for the consistent long-term monitoring and management of biodiversity and urban greening. Maintenance, including tree replacement, may be secured by condition.
Potential Outputs	• BNG reporting as outlined in the HMMP (Habitat Monitoring and Management Plan) • Meet requirements of LEMP (Landscape and Ecology Management Plan) • Address any monitoring or survey requirements in conditions to the planning permission.
Considerations	Avoidance: Avoid employing or introducing processes that would see the decline of biodiversity on site. Avoid introducing further development on the site that could impact directly or indirectly biodiversity on or adjacent to the site. Reduce, moderate, minimise/mitigation: If biodiversity on site begins to decline, ensure a suitably qualified ecologist / Chartered Institute of Ecology and Environmental Management (CIEEM) member is appointed to undertake a full assessment and to advise on the required actions to prevent decline and increase the overall biodiversity on site. Due to the unpredictability of biodiversity, continued consideration of potential mitigation measures should be conducted and solutions recorded in the event of sudden decline in biodiversity value e.g. a drought or flood reduces an area to very low biodiversity value. Flexibility and adaptation should be considered during the post-construction monitoring phase of the development. Rescue: The rescue of any habitat features or species should have been completed before construction. Compensation: If an area of biodiversity on the site is chosen to be developed, or if due to unforeseen circumstances unsalvageable, then appropriate compensation should be provided.

Table 6: Stage 5 – Post construction

4 Guidance on Protected species and priority habitats

Protected Species

4.1 For the purposes of this guidance, protected species can be divided into two categories – those which are primarily only protected via the planning system as 'conservation priority species' under Section 41 of the NERC Act 2006 , and those that are legally protected under UK law.

4.2 The Local Biodiversity Action Plans for London and for Richmond (republished October 2025) provide a framework for the recovery of protected and important species which are present within the locality. The specified actions contained within these documents should be used to inform proposal design, mitigation and enhancement strategies.

4.3 Identified London priority species and London species of conservation concern will soon be replaced by the LNRS. Until such time, data on protected and priority species can be accessed via GiGL.

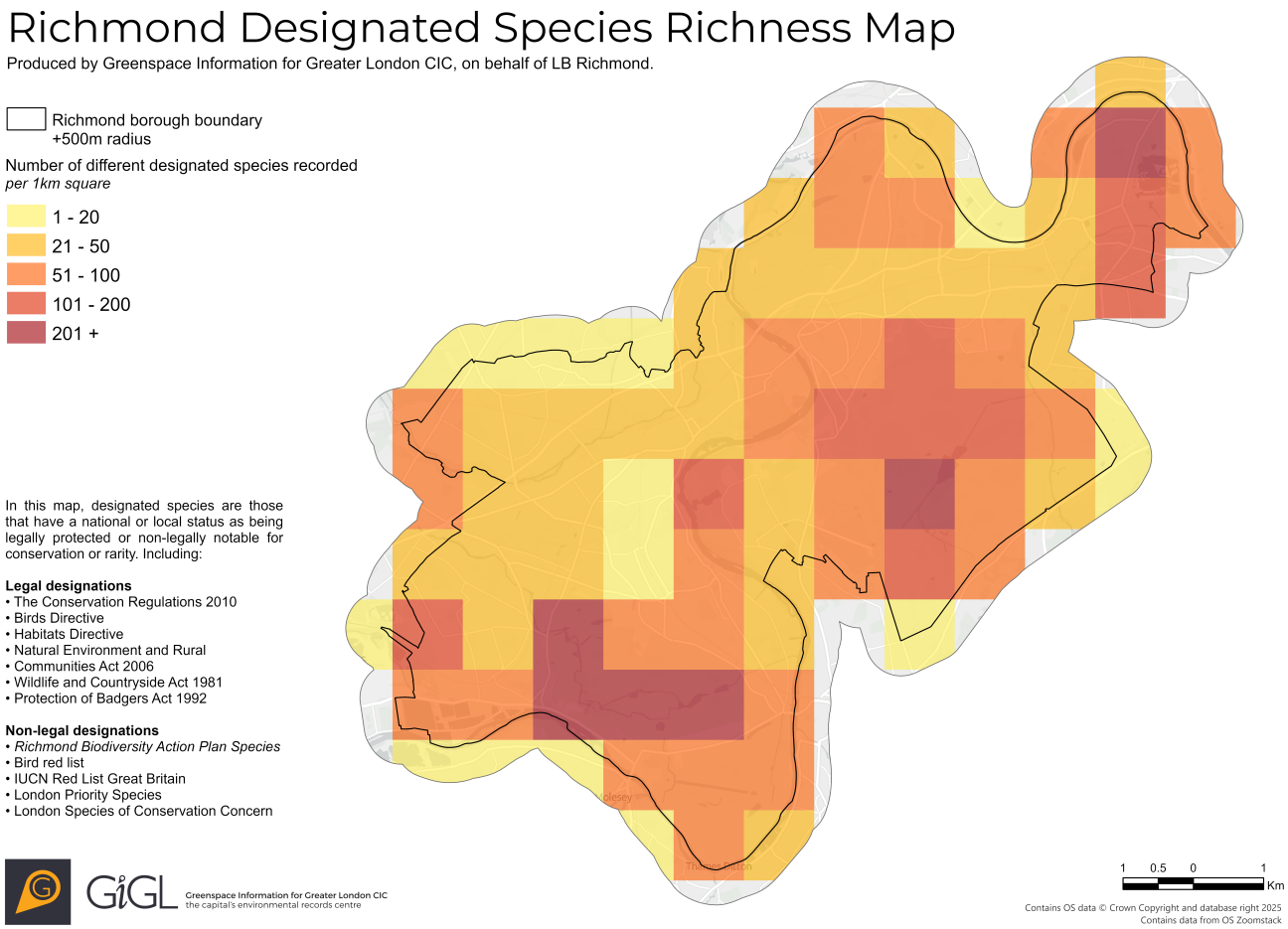


Figure 4 – Designated Species Heatmap. Heatmaps kindly provided by GiGL (2025)

The following sections provide specific advice on key species which are significant. Other species and habitats exist within the borough and if identified on or adjacent to site should also be considered when designing proposals.

Information provided within the green boxes sets out actions which applicants will find helpful in considering each species/habitat.

Bats

4.4 Important sites for bats in the borough include the London Wetland Centre in Barnes, the River Crane Valley, Richmond and Bushy Parks, Stain Hill Reservoirs, Petersham Lodge Woods and Leg O' Mutton Reservoir. The heatmap below shows the general distribution of bats within the borough.

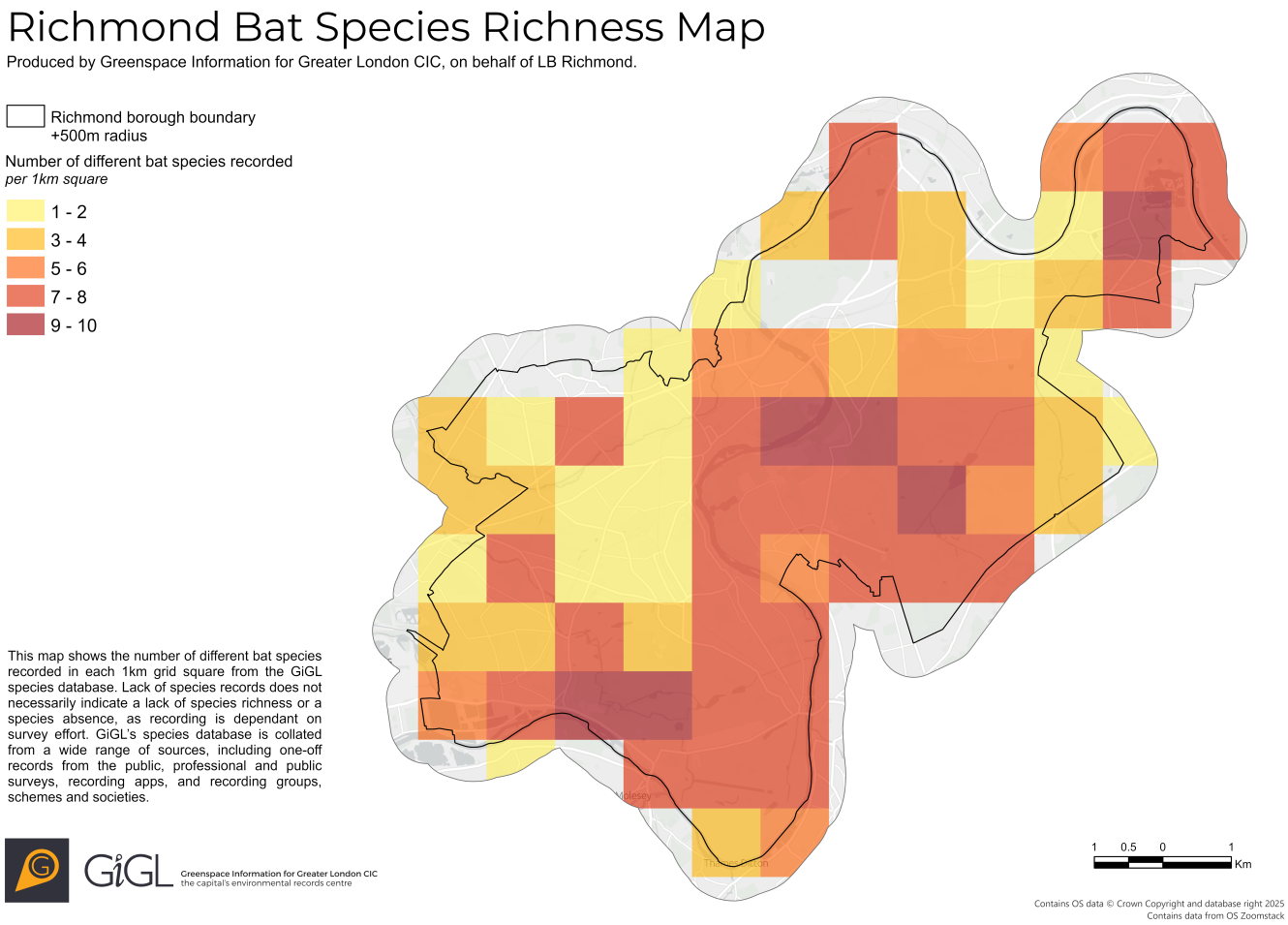


Figure 5 - Bat Records in the borough. Heatmaps kindly provided by GiGL (2025)

Policy and legislation

4.5 In Britain, all bat species and their roosts are legally protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended). The Local Planning Authority (LPA) has a duty to conserve and enhance biodiversity in the exercise of its functions under the NERC Act 2006 and the Environment Act 2021, which affords further protection to the core habitats of bats, including foraging areas and commuting routes.

Guidance on whether a survey is needed and when to do it

4.6 The LPA may request bat surveys where proposed activities are likely to negatively impact bats and their habitats. Most commonly, the purpose of these surveys will be to assess buildings, trees and structures for their potential to support roosting bats. However, surveys may also be required to assess nocturnal bat activity on a site. Bat surveys are likely to be needed if one or more of the following applies:

- Distribution (current) and/or historical records suggest bats may be present.
- The development site includes or is close to any built structures, on or underground, that provide commuting, foraging or roosting opportunities for bats.
- The development site includes or is close to a SINC or trees, shrubs or water bodies that provide commuting, foraging or roosting opportunities for bats.
- The development proposal includes lighting of buildings or green spaces close to habitats that bats tend to use.

4.7 For Survey calendar, please see Appendix 3: Survey requirements and when to do them (Survey calendar).

Impacts on...		
Bats	**Roosting habitats**	**Flight-paths and foraging habitats**
• Physical disturbance • Noise or vibration disturbance • Lighting disturbance • Injury/mortality	• Modification of access point to roost, either physically or through disturbance • Modification of roost, either physically or through disturbance • Loss of roost	• Modification of flight-paths or foraging habitats either physically or through disturbance • Severance of flight-paths • Loss of foraging habitats

Table 7: Negative Impact on Bats from Proposed Development

Source: Bat Conservation Trust (2023). Bat Surveys for Professional Ecologists Good Practice Guidelines. 4th Edition

4.8 Please see earlier section on Mitigation Hierarchy.

Mitigation licencing and the three-stage test

4.9 Mitigation Licences are issued by Natural England. You will need a mitigation licence if your work will have impacts on bats that would otherwise be illegal. This includes:

- Capturing, displacing or disturbing bats
- Damaging or destroying their breeding or resting places
- Obstructing access to their breeding or resting places

4.10 In order for a Mitigation Licence to be issued, your licence application must pass three legal tests:

- The proposal is in the overriding public interest;
- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the favourable conservation status of the species concerned.

Mitigation and enhancement standards

4.11 Specifications of ecological mitigation relating to legally protected species, including bats, will usually be directed by the project ecologist, and be specific to the legislation and mitigation licencing requirements by which it is driven. Natural England's published Bat Mitigation Guidelines provide the basis for this.

New developments can play an important role in preventing further harm to and supporting bats by taking the following actions:

- Installing bat roosts; including bat boxes, bat bricks and bat access tiles.
- Using bat friendly roofing membrane; bitumen 1F felt that has a non-woven, short fibre construction is preferred.
- Including planting and other habitats, such as ponds and deadwood, to encourage flying invertebrates.
- Avoiding lighting where possible and where lighting is required, installing bat friendly lighting. See additional guidance on lighting for more detail.

For more details, please see:

- Information and guidance about bats and their legal protections on the Council's website
- Section 4.2 of the Richmond Biodiversity Action Plan, specifically relating to bats (Species Action Plan).
- Providing bed and breakfast - Gardening for bats and Bat Box Information Pack, Bat Conservation Trust.
- Habitat management for bats – a guide for land managers, land owners and their advisors, Joint Nature Conservation Committee
- Bats and Artificial Lighting at Night, Institution of Lighting Professionals
- Bats, Richmond Biodiversity Partnership- leaflet.

Swifts and house sparrows

4.12 Swifts naturally nest in the crevices of cliff faces and sparrows naturally nest in dense vegetation. Both species have adapted to make the urban landscape their home by taking advantage of features that replicate this environment, favouring the eaves and roof space of buildings. Modern building design and the redevelopment of buildings have meant that they have been excluded from many suitable breeding sites.

4.13 Both species have received the highest level of conservation concern, red status, with the species needing urgent action. All development proposals affecting modifications or demolition of existing buildings should take into account potential impacts on nesting birds. Species which are highly likely to use buildings for nesting in south-west London are swifts, house sparrows, starlings and black redstart.

Legislation

4.14 All wild birds and their nests (whilst active) are protected under the Wildlife and Countryside Act 1981. Further information on Ecological Legislation can be found in Appendix 1: Ecological Legislation.

Potential impacts

4.15 Construction and demolition works can impact birds nesting in trees, buildings and structures either directly or indirectly. This means that the works could lead to the direct killing or injuring of wild birds and/or the destruction of active nests and live eggs, which would constitute a criminal offence, or they could lead to loss of potential nesting sites if carried out at a time when birds or active nests are not present. Whilst the latter would not constitute a criminal offence, this will have a detrimental cumulative impact on the conservation status of these declining species.

Mitigation and enhancement standards

4.16 One of the priority actions for swifts includes installing swift boxes and bricks in new developments and retrofitting swift boxes on existing buildings. Swift nesting boxes can also be used by other bird species including sparrows, starling and blue tits.

New developments can play an important role in preventing further harm to and supporting the recovery of swifts and house sparrows by taking the following actions:

- All development proposals affecting modifications or demolition of existing buildings should consider potential impacts on nesting birds.
- One of the priority actions for swifts includes installing swift boxes and bricks in new developments and retrofitting swift boxes onto existing buildings. Both swifts and house sparrows are gregarious and prefer to nest in colonies. Swift boxes where possible should be placed in groups of at least three boxes, approximately 1m apart.
- For house sparrows, installing appropriate nesting bricks or boxes on new and existing buildings is similarly a high priority. House sparrows are also known to use swift boxes.
- Scrub, hedgerows and fruiting/flowering shrubs are important for providing food and cover for sparrows and should be included where possible in landscaping schemes.
- Create meadow grassland habitats that support diverse aerial invertebrate populations and provide seeds, both essential food sources for swifts, house sparrows and many other bird species.

For more details, please see:

- Sections 4.4 and 4.8 of the Richmond Biodiversity Action Plan, specifically relating to swifts and house sparrows and song thrush (Species Action Plans).
- https://www.actionforswifts.com/
- https://www.swift-conservation.org/

Badgers

Badger legislation

4.17 Badgers and their setts are protected by law. The Protection of Badgers Act 1992 prohibits:

- Taking, injuring, ill-treating or killing a badger
- Obstruction, disturbance, damage or destruction of a badger sett

4.18 Badgers could be affected by a development if the proposal causes:

- Damage to setts
- Loss or isolation of setts
- Loss of foraging areas
- Disturbance to badgers whilst occupying a sett

Badger survey

4.19 An initial survey of a site for badger setts or signs of badgers will typically, but not always, be carried out by an ecologist as part of a Preliminary Ecological Appraisal, see Appendix 2: Types of Ecological Reports for more details. A badger survey is required if historical or current distribution records show that badgers are active in the area, and there is suitable habitat for sett building and foraging on site.

Please Note: There is a legal requirement for any information relating to badgers to remain confidential. This must be submitted as a separate document.

4.20 For survey calendar, please see Appendix 3: Survey requirements and when to do them (Survey calendar).

Mitigation hierarchy

4.21 As is the case with all potential impacts to biodiversity, developers must follow the 'mitigation hierarchy' when addressing negative effects of the proposals on badgers. Examples of how this could be applied include:

Avoidance	Mitigation	Compensation
• Design a layout that avoids damaging badger setts or isolating the badgers' territory • Avoid artificial lighting around setts • Retain vegetation around setts to provide cover • Avoid disturbance around setts • Keep heavy machinery and excavation work away from setts • Avoid activity between dusk and dawn when badgers are most active	• Maintain foraging space and watering areas • Maintain habitat connectivity with road tunnels, underpasses and green corridors • Covering of trenches and capping pipes on active construction sites • Undertaking temporary sett closure or professionally supervised excavation for the installation of subterranean infrastructure	• Creation of artificial setts where there is a permanent or temporary loss of a badger sett.

Table 8: Examples of Mitigation Hierarchy

Badger licencing

4.22 A badger licence may be required if a proposed development would impact badgers through activities which would otherwise be illegal.

New developments can play an important role in preventing further harm to and supporting badgers by taking the following actions:

- Maintaining access in the landscape for badgers to move between setts and foraging grounds.
- Providing safe routes across busy roads.
- Avoiding the loss of badger setts and foraging habitat.

- Providing suitable alternative foraging habitats such as hedgerows and amenity grassland.
- Introducing preventative measures on sites to avoid killing or injury of badgers during the construction phase.

For more details, please see:

- Guides for Developers, Ecologists and Planners, the Badger Trust

Hedgehogs, mammals and fencing

4.23 Connectivity between garden and peripheral habitats in urban environments has been significantly curtailed by the increased number of new fences and walls. Garden fences that have no gaps at ground level restrict the movement of hedgehogs, amphibians, badgers and other mammals. Hedgehogs in particular are completely reliant on access to inter-connected patches of habitat where they can forage and find refuge.

New developments can play an important role in preventing further harm to and supporting the recovery of hedgehogs by taking the following actions:

- All new fencing and walling are expected to provide connectivity gaps for hedgehogs where appropriate.
- Paving front gardens for parking reduces green space for all wildlife. Manicured gardens do not favour hedgehogs: they prefer long grass, compost heaps and wood piles for nesting and foraging, and retaining/creating such areas where appropriate in peripheral areas of a development site or property can have significant benefits for urban nature.
- Measures should also be implemented during demolition and construction to prevent harm to hedgehogs and other small mammals including sensitively removing vegetation and deadwood piles, as well as covering trenches and pipes or providing ramps to prevent mammals from becoming trapped.

For more details, please see:

- Section 4.3 of the Richmond Biodiversity Action Plan, specifically relating to hedgehogs (Species Action Plan).
- Further specification for fencing and walling, along with other aspects of landscape design which are important for hedgehogs and other species can be found in the following joint publication Encouraging hedgehogs in your neighbourhood, from People's Trust for Endangered Species and British Hedgehog Preservation Society.
- Front gardens and crossovers

Stag Beetle

4.24 The Stag Beetle is the UK's largest ground living beetle with a significant population in South West London. The Stag Beetle is a nationally threatened species. The population decline is related to habitat loss due to development, and the sanitisation of parks and gardens with the removal of dead and rotting material. Rising public awareness of the Stag Beetle, its life cycle and the benefits of dead and decaying wood, leaf litter and avoiding 'tidying up' green spaces, will help create suitable habitats for the wider invertebrate population.

New developments can play an important role in preventing harm to and supporting stag beetles by taking the following actions:

- Retaining existing trees, stumps and deadwood where possible.
- Ensuring mitigation measures are implemented during construction to prevent harm to stag beetles such as removing any dead wood habitat being impacted by works by hand.
- The creation and long-term maintenance of stag beetle loggeries and dead wood piles as part of landscaping schemes is essential to supporting this species.

For more details, please see:

- How to build a stag beetle loggery, People's Trust for Endangered Species
- Stag Beetle Action Plan, London Biodiversity Partnership

Pollinators

4.25 Pollination is necessary for plant reproduction and therefore pollinators play a vital role in producing the food we eat and the wild plants that support many other species. Unfortunately, long term data relating to UK pollinators presents a concerning picture.

New developments can play an important role in preventing further harm to and supporting the recovery of pollinators by taking the following actions:

- Abiding by the Mitigation Hierarchy and where possible designing new buildings and landscaping around established habitats.
- Looking at how new developments provide an opportunity to contribute to pollinator corridors.
- Planting native and non-native UK pollinator friendly species that provide forage, nesting and hibernation habitat for pollinators throughout the year.
- Where practical incorporating biodiverse roofs.
- Providing nesting sites for pollinators ranging from bee bricks and nesting boxes to sand piles and areas of bare ground.
- Making sure landscape management plans prioritise hand weeding and promote the avoidance of the use of herbicides except under exceptional circumstances.
- Incorporating practices in the landscaping management plans such as leaving some seed heads and areas of longer grass during the winter for invertebrates to hibernate in.

For more details, please see:

- Section 4.6 of the Richmond Biodiversity Action Plan, specifically relating to pollinators (Species Action Plan).
- Wildlife Gardening – Building for Bees , Bugslife.
- Plants for Pollinators, Royal Horticultural Society.

Priority Habitats

4.26 Priority Habitats are those listed under Section 41 of the NERC Act 2006. Please see the government's website for more information.

4.27 Mitigation and enhancement for priority habitats will largely be delivered through the principles of biodiversity net gain and driven by the London Local Nature Recovery Strategy when produced. Priority habitats should be retained, restored and enhanced within proposal designs as far as possible, and where proposals will result in the loss of or degradation to priority habitats, compensation will be required.

4.28 Following the principles of Biodiversity Net Gain (BNG), enhancement of habitats can involve either the creation of new habitats or the improvement of existing ones. Creation of new habitats should always consider the baseline habitat which will be sacrificed to make way for the new habitat, and therefore the new habitat should always be of the same or higher distinctiveness compared to the baseline habitat. Improvement of existing habitats should aim to exceed the baseline condition of the habitat, for example, from poor to moderate or moderate to good condition.

4.29 Furthermore, the Local Biodiversity Action Plans of London and Richmond upon Thames as well as the London Local Nature Recovery Strategy provide a framework for the recovery of priority habitats which are present within the locality, and the specified actions contained within these documents should be used to inform proposal designs, mitigation and enhancement strategies.

Aquatic and riverine environment

Current and future challenges to the riverine environment

4.30 Our aquatic and riverine environments are a core part of the environment that we inhabit. In Richmond upon Thames, our rivers, their banks and surrounding environments contribute to the special and distinctive character of the borough. The rivers are important components of the wider Green Infrastructure network and provide valuable habitats for wildlife and recreational opportunities for local communities. The borough's Blue Ribbon network contains the River Thames, and other important rivers and waterbodies including the River Crane, Duke of Northumberland River, Longford River and Beverley Brook. Local Plan Policy 40 – Rivers and River Corridors sets out the policy approach.

4.31 As the effects of climate change continue, and with necessary changes to the operation of the Thames Barrier imminent, flooding within riverside areas is expected to become more common and more significant. The protection of people, properties and infrastructure from the risk of fluvial and tidal flooding is essential in this borough and the integrity of the flood defence infrastructure must therefore be maintained.

4.32 Soft-engineering approaches to riverbank protection and the incorporation of an undeveloped buffer zone is encouraged so that development can contribute to the natural state of the river environment. Sections of watercourse have in the past been buried underground in culverts, causing adverse impacts for flood risk, ecology, maintenance, and health and safety. The Council will support initiatives to de-culvert rivers where it is feasible and practicable to do so, in line with the Council's Surface Water Management Plan. Where an existing culvert is present at a development site, priority should be given to 'daylighting' the culvert to restore a naturalised open river channel, as well as avoiding construction over existing culverts, in line with Environment Agency policy.

Buffer zones

4.33 Development adjacent to the river corridors will be expected to contribute to improvements and enhancements to the river environment (see in particular Policy 39 – Biodiversity and Geodiversity and Policy 40 – Rivers and Corridors). A buffer zone of 8 metres will be required on all new developments adjacent to the borough's rivers (including the fluvial Thames) with a 16m buffer required on sites adjacent to the tidal Thames. This presents opportunities for significant habitat enhancements on these sites. However, there may be situations where it is not feasible to set back development by the above amounts. Where applicants wish to depart from these standards, full justification must be provided at planning application stage and agreed with the Environment Agency.

4.34 These buffer zones should be free of hard landscaping where appropriate, and be designed in relation to four objectives, including:

- Reducing surface-water runoff into rivers and streams
- Providing space for the maintenance and future upgrade of flood defences
- Enhancing biodiversity
- Increase public access alongside and to the river

4.35 Planting schemes within buffer zones should consist of native, locally sourced plants, shrubs and trees where possible. Thought should be given to the mature height of newly planted trees and shrubs to prevent overshading of the channel, in addition to the density and aspect of the planting. Trees and shrubs planted on north-facing riverbanks will cast greater shade on the river. See section on Types of planting.

4.36 It must be ensured that any new trees do not damage the structural integrity of, or detrimentally impact the access to, flood defences. Where trees are located adjacent to flood defences, tree root protection measures are required to ensure the roots do not damage the flood defence structure. The location of trees should be considered in vehicular/plant tracking diagrams to ensure they do not preclude access to the flood defences.

4.37 Trees close to flood risk management infrastructure should consider root containment and have a significant offset relative to their mature canopy spread extent. This is to preserve operational setback access and recognises that tree removal can be difficult due to strong opposition to the loss of established trees

4.38 If the buffer zone between the development and the river includes the water's edge, then native marginal semi-aquatic vegetation should be planted or encouraged to grow. This may be aided by the use of fixable infrastructure such as floating biohavens, coir rolls or pre-planted coir pallets.

4.39 Buffer zones should contribute to creating and maintaining 'dark corridors' along rivers and should be void of all but the minimal most essential artificial lighting at night. Any essential lighting should avoid direct spillage of light onto the river and the water's surface. See also section on Lighting.

4.40 Where barriers to fish movement, such as weirs, are present in a watercourse adjacent to or within a development, the design should include the removal of that barrier, or where not feasible, measures to allow for the natural movement of fish within the watercourse.

4.41 Naturalised setback of flood defences and restoration of saltmarsh habitat with regraded riverbanks should be considered to provide fish refuge and wading bird forage. Where regrading banks to at least a 1 in 7 gradient is not feasible, intertidal terracing should be considered. Various restoration techniques can be explored in line with Estuary Edges Guidance. Improved fish/eel refuges are encouraged with new pontoons or structures within the watercourse.

River Thames

4.42 A Site of Metropolitan Importance for wildlife, the Tidal Thames is a distinctive feature that runs through the borough and is home to over 100 species of fish, including many endangered species such as European eels, seabass and smelt. Recent research by the Zoological Society of London (ZSL) has shown that as well as being a pathway between freshwater habitat and the open seas, the Tidal Thames provides vital nursery habitat for many fish species, affording protection from predators and strong tides. Developments alongside and adjacent to the River Thames should contribute to improvements and enhancements to the river environment, including the creation of new habitats, while forming part of a riverside strategy approach recognising wider links to climate resilience and wider benefits. Various partners, including the Council and the Thames Landscape Strategy, are working to develop a riverside strategy that will look holistically at the use and future viability of the floodplain.

For more details, please see

- Fish conservation in the tidal Thames, Zoological Society of London
- Tidal Thames Habitat Action Plan for Richmond (see section 3.9 of Biodiversity Action Plan, Richmond Biodiversity Partnership).
- Thames Landscape Strategy and Thames Strategy (Kew to Chelsea) (part of the Joint Thames Strategy Refresh)

River Crane

4.43 The River Crane is an important river corridor, which has benefited from significant environmental improvements. Developments alongside and adjacent to the River Crane should protect and where possible enhance the river corridor and contribute to the overarching aim of creating a new metropolitan park that provides a continuous, accessible link between Hounslow Heath and the River Thames, incorporating river restoration works along the lower Crane, including a long-distance footpath, improved access for surrounding communities and an enhanced wildlife corridor.

For more details, please see

- Lower Crane Valley Environmental Management Plan January 2024 – December 2028 - a management plan to influence the restoration and maintenance of the Lower Crane Environment.
- Green Infrastructure Plan – Colne & Crane Valleys (2019)
- Strategy for the Crane Catchment 2018-2028 (Crane Valley Partnership, 2018)
- State-of-the-Crane-Environment-Report-February-2025.pdf
- Lower Crane Valley Re-naturalisation and Enhancement Plan (2023) xx
- Water Vole Species Action Plan for Richmond (see section 4.10 of Biodiversity Action Plan, Richmond Biodiversity Partnership)
- Rivers & Streams Habitat Action Plan for Richmond (see section 3.8 of Biodiversity Action Plan, Richmond Biodiversity Partnership)
- Reedbeds Habitat Action Plan for Richmond (see section 3.10 of Biodiversity Action Plan, Richmond Biodiversity Partnership)

Longford River and Duke of Northumberland River

4.44 Both rivers form part of the wider Crane Valley catchment. Both form part of the borough's Blue Ribbon network, and are also identified as green grid areas in the Mayor of London's All London Green Grid SPG. Applicants should refer in particular to Local Plan Policy 40- Rivers and River Corridors.

Beverley Brook

4.45 The Beverley Brook is a 14.5 kilometre long river, and moves through several green spaces including Wimbledon Common, Richmond Park and Barnes Common. In recent years, multiple river restoration projects have been carried out along the Beverley Brook, particularly within these green spaces, to help improve the ecological functioning of the river and to create more habitats for wildlife as well as improving flood resilience. Where appropriate, developments alongside and adjacent to the Beverley Brook should improve the river habitat, prioritising naturalisation where possible, as well as securing improved, managed access to the river for the local community.

Ponds and lakes

4.46 Ponds and lakes are vital habitats for aquatic, semi-aquatic and avian wildlife. Proposals affecting or close to ponds and lakes must seek, in the first instance, to avoid the loss of or degradation to these habitats.

4.47 Where ponds and other standing water bodies fall within a development site, efforts should be made to enhance their biodiversity value as part of the scheme.

- There should be no net loss of ponds and any loss of ponds resulting from a development proposal should be appropriately compensated for by the installation of new wildlife ponds within the site.
- These should be of a similar size and equal or better biodiversity value to the ponds being lost and there should be no net overall loss of ponds.

4.48 Where ponds are present on or close to a development site, the potential for the presence of great crested newts must be considered. **Great crested newts** are a protected species in the UK, and a Natural England Mitigation Licence may be required to carry out works on site which would otherwise constitute a legal offence in relation to great crested newts. As part of a Preliminary Ecological Appraisal (PEA) (See Appendix 2: Types of Ecological Reports), the ecologist should complete a desk study of local record distribution and a Habitat Suitability Index (HSI) assessment of any ponds on or within the development site, in order to determine if further measures are necessary to protect great crested newts within the development proposals.

For more details, please see

- Freshwater Habitat's Trust Pond Creation Toolkit, Freshwater Habitats Trust.

For more detail on great crested newts on other amphibians please see

- Amphibians & Reptiles Species Action Plan for Richmond (see section 4.1 of Biodiversity Action Plan, Richmond Biodiversity Partnership)

Watercourses and Biodiversity Net Gain

4.49 The Watercourse Unit Module (previously referred to as the Watercourse Metric and/or Rivers and Streams Metric) is one component of the Biodiversity Metric. Any river or stream that lies within 10m of the red line boundary must be included, with a minimum of 10% net gain of Watercourse Habitat Units delivered. For canals, ditches and culverts, the Watercourse Unit Module is applied where it is located within 5m of the red line boundary. Watercourse Units cannot be traded across other habitat types. Uplift in Area Habitat Units and Hedgerow Units will need to be achieved separately where these habitats are present.

4.50 Development should seek to maximise the restoration and enhancement of aquatic habitats, including taking account of the implementation of opportunities identified in existing plans and datasets. For instance, the Environment Agency's Catchment Planning System and the GiGL River Restoration Opportunity Map, which contain spatially referenced measures. Development should not prejudice the future implementation of restoration measures contained in the EA's Catchment Planning System.

5 Guidance on associated policy and how developments can make ecological enhancements

5.1 The following sections provide supporting information to ensure applicants can successfully integrate biodiversity into their proposals. It sets out guidance and signposting on how designing for biodiversity interconnects with other policy objectives such as Urban Greening and Biodiversity Net Gain (BNG) and how these objectives relate to each other.

5.2 It also provides guidance on types of planting and clear information as to how green and other features can be successfully incorporated into a development plan. Detail is included as to how new green features, such as biodiverse roofs and gardens, can be holistically incorporated into sites and how lighting can be included in a complimentary way.

5.3 This section will help applicants ensure their developments can successfully mitigate and enhance biodiversity on site, such as through screening/ buffering from adverse environmental impacts including artificial light, noise, pollution, and overuse/inappropriate use from people and domestic animals.

Associated policies and considerations

Biodiversity Net Gain (BNG)

5.4 BNG contributes to the recovery of nature whilst developing land. BNG also makes sure that habitat for wildlife is in a measurably better state than it was before development. All developments subject to BNG must demonstrate how the development site meets the minimum mandatory requirement of 10% BNG over the pre-development value of the site.

Where proposals are subject to BNG applicants must:

- achieve 10% BNG, applicants are encouraged to take opportunities to deliver a greater amount of gain, particularly where there are clear opportunities to accommodate greater gains with the design of the proposal.
- do a survey of habitat before development and use the statutory biodiversity metric to prove the accurate calculation of the biodiversity value of habitats before and after development, and if the 10% BNG has been met
- complete and submit a Biodiversity Gain Plan after planning permission is granted.

5.5 Therefore, it is strongly recommended that applicants supply:

- A fully completed biodiversity metric (including both the pre-development baseline and post-development calculations)
- A to scale plan (with a north arrow) detailing the proposed post-development BNG habitats

Please see the Council's Local Validation Checklist for the latest requirements.

5.6 A full list of required information to be supplied with a planning permission is set out in legislation [1]. Applicants are advised to provide documents at the outset to evidence BNG requirements to avoid delay in progressing applications. A complete Biodiversity Gain Plan and BNG Metric are now required to discharge the mandatory pre-commencement BNG condition which should be submitted with the planning application.

5.7 Applicants are strongly encouraged to complete the Template Biodiversity Net Gain Statement to show how their development has considered, or is exempt from, biodiversity net gain.

5.8 Natural England have published a BNG irreplaceable habitats list. This list has also been set out in The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations [2024].

Please see the following webpages on the Council's website which provide details on what applicants need to consider:

- Mandatory biodiversity net gain requirements for all planning applications **for guidance on BNG in the borough, how and what to provide and what exemptions exist.**

1 Please note the Council's web pages will be kept up to date with any changes to the BNG process.

Even if you think your development is exempt from Biodiversity Net Gain, you are strongly encouraged to complete the Template Biodiversity Net Gain Statement specifying the reason for the exemption.

5.9 Please note, applications exempt from BNG will still be subject to existing policy and wildlife legislation and these applications are still expected to demonstrate their potential impacts on biodiversity either on or adjacent to the development site, how any impacts will be mitigated, as well as provide biodiversity enhancements onsite.

There is a local requirement to submit an Ecological Enhancement Statement for all development (except householder developments*) exempt from BNG and/or where not required to undertake a PEA.

The Statement should outline measures to protect and enhance biodiversity and geodiversity, including ecological connectivity through habitat corridors and stepping-stone sites. Enhancements must reflect site conditions and local priorities, such as those in the Richmond Biodiversity Action Plan. The statement, proportionate to the development scale, should clearly summarise proposed actions like habitat creation, native planting, and wildlife features, including implementation and maintenance details. While not requiring a qualified ecologist, it should be prepared by someone competent in ecological principles to ensure appropriate and effective measures are being proposed.

* Statement not required for householder applications, but all development is expected to deliver ecological enhancement where feasible.

5.10 Please see also the section on Watercourses and Biodiversity Net Gain and the section below on Conservation covenants.

Guidance on assigning strategic significance in Richmond upon Thames

5.11 Strategic significance needs to be assigned as part of BNG calculations. Strategic significance is the local significance of a habitat based on its location and habitat type.

5.12 Prior to the publication of Greater London's Local Nature Recovery Strategy, the local planning authority is responsible for specifying how strategic significance will be assigned within the Statutory Biodiversity Metric and the following paragraphs and diagram set out the Council's approach.

5.13 Following the publication by DEFRA of the secondary legislation, which provides the detail for the biodiversity net gain framework, only biodiversity offsets which are considered to be 'significant' require the production of a Habitat Management and Monitoring Plan (HMMP) (see Appendix 2: Types of Ecological Reports) which will outline how the land will be managed over at least 30 years, and the subsequent undertaking of periodic monitoring and reporting on the status of the offset.

5.14 There is no statutory definition of what constitutes a 'significant' offset. In this borough, this will ultimately be determined at the discretion of the Local Authority's Ecology Policy and Planning Officer on a case-by-case basis, taking into account factors including, but not limited to, those identified in the following flow chart.

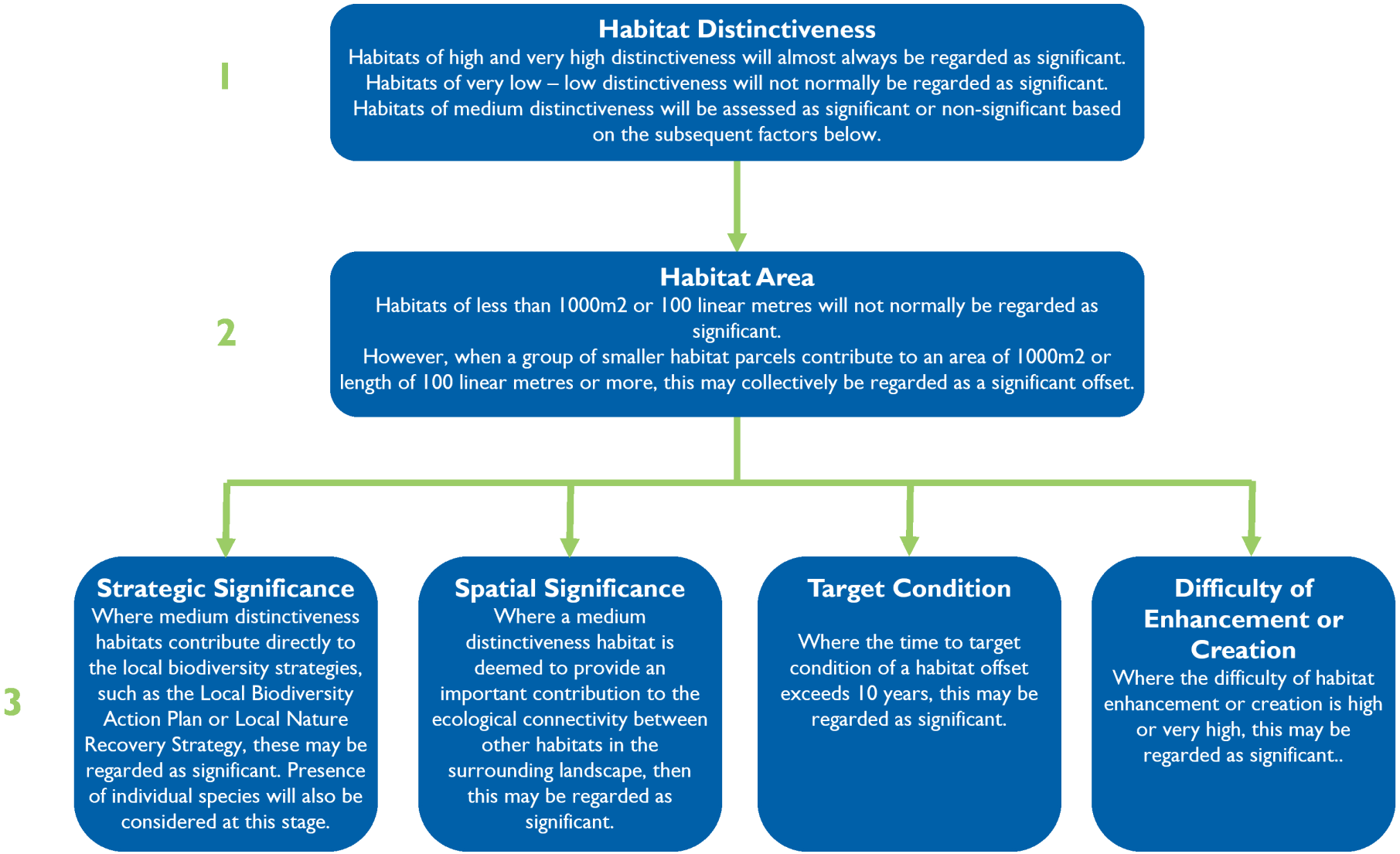


Figure 6: Strategic significance

Urban Greening

5.15 Local Plan Policy 38 states that **all** development proposals should integrate green infrastructure and provide for urban greening, which is the incorporation of green infrastructure elements into a development, such as vegetation, trees, green roofs, green walls, hedgerows and water features. Small sites, as well as larger schemes, are expected to incorporate urban greening on site and/or within the development.

- Please see the London Plan Guidance on Urban Greening Factor.
- **Please also see the Council's Local Validation Checklist for the latest requirements.**

Conservation covenants

5.16 A conservation covenant is a private, voluntary agreement between a landowner, including developers, and a designated responsible body, for the long-term conservation of the natural or historic features of land. The agreement must have a conservation purpose, be for the public good, and state the positive or restrictive obligations needed to achieve the purpose. Obligations with respect to payments and monitoring can also be included. The conservation covenant must be executed as a deed and registered as a local land charge, and the obligations are legally binding on the landowner (and their successors) and the responsible body. There is no template agreement, as they can be used in many different ways.

5.17 The landowner must either be the freeholder of the land or a leaseholder with more than seven years remaining on the lease. Responsible bodies are approved by DEFRA, which maintains a published list, and can be a local authority, a public body or charity, or a private sector organisation working in the conservation sector. The current list can be found at this link: Conservation covenants: list of designated responsible bodies. The responsible body will monitor the land and ensure compliance with the agreement and can charge for its services.

5.18 Conservation covenants can be used by individuals or organisations (including local authorities) to agree and fund work for biodiversity on private land, outside the planning process. For example, one might be used to agree how land is managed to conserve a rare habitat or species, or to prevent harmful actions such as spraying pesticides. In these circumstances, the length of the agreement can vary according to the specific circumstances and wishes of the parties. The covenant can be discharged, modified or transferred to another responsible body through mutual agreement.

5.19 Conservation covenants can also be used to agree how land can contribute towards Biodiversity Net Gain (BNG) and to secure the 30-year maintenance period. Whilst section 106 agreements are likely to be used by local authorities to secure net gain and financial contributions relating to on-site BNG, conservation covenants are more flexible and particularly suited to securing off-site BNG or habitat bank units: conservation covenants are not governed by the Community Infrastructure Levy regime; developers can make the agreement with any responsible body; and they can be put in place ahead of the planning process, reducing delays.

5.20 A conservation covenant for BNG purposes will last for a minimum of 30 years. Where linked to a planning permission, it must not be ended unless another mechanism is in place for securing those biodiversity gains for the remaining time of the agreement.

Relationship with Heritage

5.21 Protecting and enhancing nature is an important consideration when conserving heritage assets which may already be home to biodiversity such as lichen, ferns, mosses and have features such as bat boxes.

5.22 Developments in conservation areas, or those which could affect other designated and non-designated heritage assets including their settings, need to carefully consider how biodiversity can be incorporated without adversely impacting on the character, function and preservation of a specific area or asset. There is no one-size-fits-all approach or solution to encouraging biodiversity in the historic environment. Applicants should not presume that a viable and sustainable solution cannot be found or be provided. Ultimately, the merits of a proposal and any potential harm to a heritage asset will need to be considered and assessed on a case-by case basis, as it will depend on site specific circumstances and the significance of the heritage asset/s affected.

5.23 When managing the relationship between nature enhancements and the historic environment a holistic approach should be taken which accommodates awareness of historic environment sensitivities. Schemes should:

- Consider the historic environment from the outset
- Maximise environmental benefits including for the historic environment
- Abide by legal, policy and guidance requirements for the protection and management of the historic environment
- Avoid damage to the historic environment wherever possible, minimise harm where necessary and mitigate appropriately.

Types of planting

5.24 All new planting within landscaping schemes should prioritise a mixture of native and non-native wildlife friendly species and should be locally sourced where possible. It is also of paramount importance that plants and trees come from reputable nurseries with strong biosecurity protocols, as imported trees and plants are often vectors for pests and diseases which affect native plant and tree health. It is also important to consider planting schemes that are more sustainable and require less watering.

For more details, please see:

- Plants for Pollinators - Garden plants, the Royal Horticultural Society.

This resource provides a list of garden plants which will flower throughout the year providing a constant nectar source for pollinators.

5.25 It is recommended that a minimum of 60% of the planting schedule is derived from the species on the Plants for Pollinators list or other native, locally occurring species and that the remainder be a mixture of seasonally flowering plants and shrub species. The Bat Conservation Trust's Wild About Gardens - Stars of the Night guide provides a list of night scented species that should also be considered.

5.26 As well as pollinator friendly species, plants that provide fruit and seeds are also important (see section on Pollinators). Furthermore, combining plants that provide a variety of structure and food sources should also be considered to better support a greater range of wildlife and life stages of individual species. For example, a mixed native species hedge along the boundary line of a new development, interspersed with trees and with an adjacent wildflower meadow, will have much greater biodiversity value than any of these habitats on their own.

5.27 Trees and hedges present an opportunity for creating good quality habitats on new developments and so it is important to consider the wildlife value of the species selected, as well as their amenity value.

For more details, please see:

- 10 Trees to Attract Birds and Other Wildlife, Woodland Trust. This guide provides information about wildlife friendly tree species.
- Plant a hedge for wildlife, Royal Society for the Protection of Birds. Provides guidance for planting hedges for wildlife.

5.28 It is the Council's expectation that new development makes provision for the incorporation of new trees. Due to the impacts of climate change, native species are not always appropriate instead species that provide the same amenity value (crown size, flowering characteristics, seasonal colour and appearance) are encouraged. For detailed guidance and recommendations on tree planting for new developments please see the Council's Trees SPD.

5.29 For larger schemes, a Landscape and Ecology Management Plan (LEMP) (see Appendix 2: Types of Ecological Reports) may be required to ensure that new planting is implemented and maintained effectively for maximum biodiversity and amenity value. Aftercare and management during the first three to five years after planting are critical for a tree's establishment.

Invasive Non-native Species and Biosecurity

5.30 Invasive non-native plants, where present on a development site must be managed or eradicated and not allowed to spread onto adjacent land. For some species, which are listed on Schedule 9 Part 1.B of the Wildlife and Countryside Act 1981, it is a legal offence to cause or allow to spread into the wild.

5.31 The London Invasive Species Initiative - Species of Concern list provides a comprehensive list of plants, shrubs and trees which should under no circumstances be included in landscaping proposals for new developments. This includes cherry laurel

(Prunus laurocerasus) and butterfly-bush (Buddleia davidii). The Council also discourages the use of bamboo because of its invasive properties.

5.32 As well as avoiding invasive species and ensuring that all plants purchased come from reputable nurseries with strong biosecurity protocols, it is essential that biosecurity measures are implemented and adhered to by all workers on site. Footwear, tools and equipment can spread organic matter and pathogens. Also, workers travelling between sites or moving between different habitats within a site, such as between a garden and standing water, pose an even greater risk of cross-contamination. More information on plant passports is available on the Government's website including when they are required.

Incorporating new features

5.33 Local Policy LP39 Biodiversity and Geodiversity is clear that proposals are required to protect and enhance biodiversity and include ecological enhancements, and this can be through incorporating and/or creating new habitats or biodiversity features within sites. Local Policy LP38 Urban Greening also requests that proposals contribute towards urban greening. It is common practice to attach conditions to permissions to ensure that these enhancements are delivered. The type of new feature that would be appropriate may relate to the nature of the site and any recommendations made as a result of the submitted ecological reports.

Types of features which could be included in a scheme:

- Incorporating green or biodiverse roofs into the proposal's design
- Nesting boxes for species appropriate to the location, for example tawny owls, bats, etc.
- Bee bricks/boxes
- Swift bricks
- Bat bricks and access roof tiles
- Small mammal passages (such as hedgehog holes and tunnels)
- Creation and long-term maintenance of stag beetle loggeries and dead wood piles as part of landscaping schemes is essential to supporting this species

More information is included relating to specific species in the section above.

Front gardens and crossovers

Please see the Council's Transport SPD (adopted June 2020) and the latest version of the Council's highways authority guidance which covers the regulatory background for creating a parking space in a front garden in detail.

5.34 All areas of green and open space provide biodiversity benefits, including front gardens. It is encouraged that front gardens and the small areas of landscaping that they contain are retained. Effectively designed front gardens can provide biodiversity benefits whilst providing parking for residents.

5.35 Introducing permeable or plantable paving instead of hard paving will reduce localised flooding and regulate the air temperature around our homes. You will not need planning permission if a new or replacement driveway of any size uses permeable (or porous) surfacing which allows water to drain through, such as gravel, permeable concrete block paving or porous asphalt, or if the rainwater is directed to a lawn or border to drain naturally. If the surface to be covered is more than five square metres planning permission will be needed for laying traditional, impermeable driveways that do not provide for the water to run to a permeable area.

5.36 Guidance is provided in the Council's Transport SPD and the latest version of the Council's highways authority guidance on how to create a parking space in your front garden and what permission you may need. The guidance includes details on vehicle crossovers, what permission is needed and points to consider. The installation of a dropped kerb or vehicular crossover can also have implications for trees, which need to be considered from the outset. Please refer to the Council's Trees SPD for further guidance.

For more details, please see:

- Guidance on permeable surfacing for front gardens, the Environment Agency.
- The Royal Horticultural Society's website includes a series of design guides and advice for best practice in front garden design.
- The front garden designing advice provides guidance on how to balance a green front garden with car parking.
- For inspiration on how to design your front garden, see the front garden inspiration webpage.

- The Front Gardens: Planting guidance provides suggestions and consideration for planting in front gardens.
- The guide how to green your grey front garden provides advice on low maintenance ways to green your front garden.

Creating biodiverse gardens

The importance of garden habitats

5.37 Gardens represent substantial land use (19.4%) in the borough and are managed by many people who can contribute to biodiversity by becoming involved in nature conservation in their everyday lives. Gardens can provide valuable local food growing opportunities.

5.38 Gardens include a range of habitats and are inter-connected green spaces for animals such as hedgehogs that need to roam over large areas. Gardens are particularly important for pollinators as they support a diversity of plants flowering throughout the whole year. As well as being wildlife habitats, gardens offer benefits in terms of drainage and water conservation, air cooling, air quality, and general health and well-being.

How to design a garden for wildlife

5.39 The Richmond Biodiversity Action Plan (RBAP) contains a wealth of further information on how nature recovery can be supported in private gardens. As a starting point, measures to enhance and encourage biodiversity in private gardens should target the flagship species referred to in the Gardens and Allotments Habitat Action Plan section of the RBAP, including:

- Birds: Song thrush, house sparrow, swift
- Mammals: Hedgehogs, badgers, bats
- Plants and trees: Dandelion
- Invertebrates: Stag beetle, bees (all species), butterflies (all species)
- Amphibians & Reptiles: Common frog, slow worm and common lizard

5.40 Interventions to encourage these flagship species in gardens are suggested in *Table 9* below:

Species group	Interventions
Invertebrates	• Creation of stag beetle and hoverfly loggeries • Creation of bee banks and installation of solitary bee sand planters • Creation of wildflower lawns • Establishment of flowering planted borders
Birds	• Swift bricks and boxes • Dense shrub and meadow grassland establishment
Flora	• Planting native bulbs, trees and seeds • Planting of disease-resistant elm trees
Mammals	• Sensitive lighting schemes • Holes in fences and walls • Planting of native flowering shrubs and trees • Compost heaps • Planting of hedgerows
Amphibians and reptiles	• Pond creation • Hibernacula (a shelter occupied during the winter by a dormant animal) • Compost heaps • Measures to encourage invertebrates

Table 9: Interventions to encourage flagship species in gardens

See *Richmond Biodiversity Action Plan*

For more details, please see:

- Gardening for the Environment, Royal Horticultural Society.
- Local Wildlife Needs Your Help, Richmond Biodiversity Partnership leaflet

Creating ponds

5.41 Ponds provide a unique and biodiverse wildlife habitat and play an important role in our history and culture. Sadly, countryside ponds are threatened by pollution, the changing climate, drainage, and development, and many are in very poor condition.

5.42 However, it is estimated that that the nation's gardeners have created an additional two to three million garden ponds. These small waterbodies increase the habitat available for our freshwater wildlife and may link fragmented wildlife communities.

5.43 Ponds and wetlands can be created using a variety of methods and can range from very large to very small. It is not necessary to reserve a large amount of space for garden ponds. Development proposals which retain and create ponds within the landscape and which capture and direct rainfall or grey water, will be encouraged.

For more details, please see:

- Make a Big Splash for Nature, Wildfowl and Wetlands Trust. This guidance provides information on how to create and manage wildlife ponds in gardens.

Biodiverse and green/brown roofs

5.44 Local Plan Policy 38 sets out the requirements for applicants who are strongly encouraged to provide biodiverse green roofs which include wildlife friendly planting based on UK native species and other habitat features such as log piles, sand piles, rope, ephemeral scrapes etc. These are the types of green roof that will have the greatest value for local wildlife. Biodiverse green roofs should be incorporated into developments with roof plate areas of 100sqm or more, where technically feasible. At least 70% of any potential roof plate area should be used as a biodiverse green roof.

Types of Green Roofs

- **Extensive Green Roof:** These lightweight, low-maintenance systems feature a shallow substrate depth that is typically less than 100mm. They do not require irrigation and are commonly planted with sedum or other drought resistant species. Although they provide modest biodiversity benefits, they can contribute to cooling buildings and reducing stormwater runoff.
- **Biodiverse Roof**: Specifically designed for habitat creation and to enhance biodiversity, these roofs are constructed to support a targeted set of species or a broader range of biodiversity. They may include elements such as deadwood, gravel, logs, and varied substrates to accommodate invertebrates, birds, and pioneer plants (lichens, mosses, and grasses). Biodiverse roofs are the Council's clear preference, due to their role in tackling the climate emergency as well as supporting biodiversity. The depth of the substrate/ soil on green roofs must be between 80mm to 150mm in depth. Substrate depths below 80mm will only be considered acceptable in very exceptional circumstances where there is robust and credible evidence in place to demonstrate why minimum substrate depths cannot be delivered.
- **Semi-Intensive Green Roof**: With substrate depths ranging from 100 to 200mm, these roofs support a greater variety of plants compared to extensive systems, including grasses, herbs, and small shrubs. They may require occasional irrigation and maintenance, offering improved biodiversity.
- **Intensive Green Roof (Roof Garden)**: These high maintenance, irrigated systems feature substrate depths exceeding 200mm. They can support a wide array of plants, including trees and lawns, effectively creating landscaped gardens on rooftops. Due to their resource demands, biodiversity benefits vary depending on planting choices.

Design Guidance

5.45 All green roof proposals should:

- Be developed according to best practice guidelines, such as the most recent Green Roof Code of Best Practice.
- Include comprehensive details of the design, species selection, substrate depth, and planned maintenance regime. Applicants must provide:
  - a scaled section through the actual roof (i.e. not a generic section of a green

roof) showing the details of the extensive substrate base and green roof components.
    - a Statement outlining management, maintenance, and monitoring arrangements.
    - details of design integration with rooftop plant and any photovoltaics and fixings.
    - details of plug planting, seed composition and planting methodology.
- Maximise biodiversity potential through the incorporation of native planting where feasible. Guidance produced by Buglife suggests that sedum plants should normally comprise no more than 30% of the species composition.
- Consider orientation, height, wind exposure, and structural load capacity.
- Demonstrate how long-term benefits to biodiversity will be maintained.

5.46 The use of green walls is encouraged in line with Local Plan Policy 38.

- Vertical surfaces covered by living green walls should be included in the Urban Greening Factor (UGF) calculation, but do not contribute to the total site area.
- Green walls are assigned a UGF score when rooted in soil or modular systems.
- While green walls can offer biodiversity and cooling benefits, their use on residential buildings should be carefully considered due to fire safety, maintenance, and irrigation requirements.

Please see the Council's Local Validation Checklist for the latest requirements.

Sustainable Drainage Systems (SuDS)

5.47 SuDS should be approached not only as a flood risk management tool but as a key opportunity to enhance biodiversity and contribute to climate resilience. By integrating SuDS into site design, applicants can support the Local Plan objectives, policies 4 and 8, deliver ecological benefits, and align with the borough's Climate and Nature Strategy, particularly in areas with poor access to nature or a history of surface water flooding, and with the Biodiversity Action Plan.

5.48 The design of SuDS features—such as swales, rain gardens, filter strips, detention basins, green roofs, and permeable paving—should contribute to the borough's green infrastructure network and support locally distinctive habitats and species.

5.49 Wherever possible, SuDS should be designed to:

- Support local biodiversity targets, including habitats for pollinators, invertebrates, amphibians, and birds, particularly those identified in Richmond's Local Nature Recovery Strategy and Biodiversity Action Plan.
- Enhance ecological connectivity, linking fragmented green spaces such as parks, commons, river corridors, and Sites of Importance for Nature Conservation (SINCs).
- Incorporate native and climate-resilient planting, with a focus on species-rich, low-maintenance vegetation suited to urban conditions.

5.50 Applicants should demonstrate:

- How SuDS features have been embedded into the layout and landscape of the site from the outset.
- How it aligns with the borough's aspirations to support biodiversity net gain and climate resilience.

For more details, please see:

- Guidance on Biodiversity Net Gain, Department for Environment, Food, and Rural Affairs.
- Urban Greening Factor Guidance, Greater London Authority.

5.51 Trees are also an important consideration when incorporating SuDS into development. This applies to the planting of new trees, which can naturally perform SuDS-like features, but also existing trees, which need to be considered and protected when SuDS are being designed and implemented, for example, during basement development. Please refer to the Council's Trees SPD for further guidance.

5.52 By treating SuDS as multifunctional ecological assets, developments can deliver visible, measurable contributions to the borough's nature recovery goals, while enhancing placemaking and providing benefits for both people and wildlife.

Lighting

5.53 This SPD details the biodiversity and wildlife considerations when assessing lighting proposals. A wider assessment of impacts is required by Local Plan Policy 43 Floodlighting and Other External Artificial Lighting. Any likely harm to biodiversity and the impacts on species and habitats needs to be considered.

Impacts of artificial light at night

5.54 Artificial light at night (ALAN) has increased by approximately 49% over the last 30 years. Exposure to artificial light has the potential to have a negative impact on a wide range of wildlife, from birds, bats, and fish to plant life, insects and other flora and fauna. The impact of artificial lighting on biodiversity is known to be complex and varies between species. It can either attract or repel certain species, interfering with natural feeding, breeding and migration patterns. Dark spaces are important for most species.

5.55 The extent of urbanised land is increasing, which will have a negative impact on habitat quality and wildlife corridors. Studies show that activity of pipistrelle bats (our most common bat species) is reduced in areas where the proportion of built and artificially lit surfaces exceeds 60%.

Guidance for lighting design

5.56 When designing lighting schemes in urban spaces, a number of factors will have a bearing on the effects to wildlife. These include:

- Brightness
- Colour temperature
- Direction of beam
- Intermediate attenuation
- Hours and periods of use
- Proximity to important habitats
- Glazing treatments on buildings

5.57 Lighting schemes which are designed to be ecologically sensitive will be encouraged by the Council. Such schemes may incorporate the following:

- Avoidance of light-spill onto sensitive habitats, in particular river corridors
- Lower lumen bulbs
- Use of downward lighting and avoidance of upward lighting
- Use of 'warmer' coloured bulbs, <3000K , ideally <2700K
- Use of baffles, cowls or screens to minimise directional light spill
- Lighting on short timers, or motion-triggered timers
- Lighting schemes restricted to certain periods of use, such as during the winter months (November to March)
- Lighting schemes with early curfews
- Low-transmittance glazing in building fenestration
- Dimmable lighting fixtures

For more details, please see:

- Bats and Artificial Lighting at Night, The Institute of Lighting Professionals and Bat Conservation Trust. This jointly created document provides guidance to aid the design and implementation of ecologically sensitive lighting schemes, which should be referred to during the planning stage of your project.
- Dark skies Habitat Action Plan for Richmond (see section 3.3 of Biodiversity Action Plan), Richmond Biodiversity Partnership
- Rivers and Light Pollution, Richmond Biodiversity Partnership

Lighting plans

5.58 When submitting a development proposal which includes artificial lighting, applicants will be required to submit full details and specifications of the proposed lighting scheme or secure this via a condition, including lux contour plans, which demonstrate the level of lux spill onto the surrounding areas and habitats via overlay onto a suitable basemap. The contours (and/or coloured numbers) for 0.2, 0.5, 1, 5, and 10 lux must be clearly shown, as well as appropriate contours for values above these. Vertical lux calculation plans will sometimes be requested to assess the amount of lightspill onto a particular feature, such as a line of mature trees.

5.59 It is preferred that **major** development proposals provide isobars and 3D images. These would also be advisable on all other schemes along with contour plans being the minimum requirement. Where there is already existing lighting, comparing the existing and proposed lighting on site will be necessary.

For more details, please see:

- Guidance Note on the Reduction of Obtrusive Light, the Institute of Lighting Professionals.

Please see the Council's Local Validation Checklist for the latest requirements.

6 Glossary

EA / Environment Agency – A UK government agency concerned mainly with rivers, flooding, and pollution and providing public information.

Green Chains – A series of linked open spaces and river corridors forming extended parkways for the public and wildlife in natural surroundings. These can cross borough boundaries.

Green Corridor – Relatively continuous areas of open space leading through the built environment, which may link to each other and to the Green Belt or Metropolitan Open Land. They often-consist of rivers, railway embankments and cuttings, roadside verges, canals, parks, playing fields and extensive areas of private gardens. They may allow animals and plants to be found further into the built-up area than would otherwise be the case and provide an extension of the habitats of the sites they join.

Green and Blue Infrastructure – Comprises the network of parks, rivers, water spaces and green spaces, as well as the green features of the built environment, such as street trees, green roofs and sustainable drainage systems, all of which provide a wide range of benefits and services.

Greenspace Information for Greater London CIC (GiGL) - GiGL is London's environmental records centre. GiGL mobilises, curates and shares data via services that enable their stakeholders to make informed decisions about London's natural environment in policy and practice.

Green Space – All vegetated open space of public value (whether publicly or privately owned), including parks, woodlands, nature reserves, gardens and sports fields, which offer opportunities for sport and recreation, wildlife conservation and other benefits such as storing flood water, and can provide an important visual amenity in the urban landscape.

Kelvin – a measure of the colour temperature of light sources.

Local Plan – A key statutory document produced by a local planning authority that sets out the policies and land use allocations for a local area over a long-term period. It forms part of the Development Plan.

London Plan – The plan is a spatial development strategy for the Greater London area, to deal with matters of strategic importance to the area. The current London Plan was published by the GLA in 2021.

Lumen – A measure of luminous flux which indicates how much light is perceived by the human eye.

Lux – Unit of measurement for light level intensity-illuminance.

LNR / Local Nature Reserve – A site of local nature conservation or geological significance, identified by local planning authorities.

MOL / Metropolitan Open Land – An area of predominantly open land which is of significance to London as a whole, or to a part of London.

NPPF / National Planning Policy Framework – The National Planning Policy Framework sets out the Government's Planning Policies.

NPPG / National Planning Practice Guidance – The Government's detailed planning guidance. Also referred to as Planning Practice Guidance (PPG).

RBAP/ Richmond Biodiversity Action Plan **(RBAP)** - a framework to conserve, protect, and enhance the variety of habitats and species within the borough.

SINC / Site of Interest for Nature Conservation – A site generally identified for special protection because of its local importance for flora or fauna.

SUDS / Sustainable Drainage Systems – A sequence of management practices and control structures designed to drain surface water from buildings and hardstanding in a sustainable way.

7 Appendices

Appendix 1: Ecological Legislation

Key legislation relating to biodiversity includes:

- Environment Act 2021 Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021 includes the primary for the statutory framework for Biodiversity Net Gain (BNG).
- The Conservation (Natural Habitats etc) Regulations 2017 (as amended). Often referred to as the Habitat Regulations.
- The Wildlife and Countryside Act 1981 (as amended)
- The Protection of Badgers Act 1992.
- The Hedgerow Regulations 1997
- Natural Environment and Rural Communities Act (NERC) 2006
- The Countryside and Rights of Way Act 2000
- National Parks and Access to the Countryside Act 1949
- The Town and Country Planning (Tree Preservation) (England) Regulations 2012
- The Water Framework Directive 2000

Environment Act 2021

The statutory framework relating to Biodiversity Net Gain (BNG) is covered in detail on the government's website. The relevant primary legislation for the statutory framework for BNG is principally set out under Schedule 7A (Biodiversity Gain in England) of the Town and Country Planning Act 1990. This legislation was inserted into the 1990 Act by Schedule 14 of the Environment Act 2021, and was amended by the Levelling Up and Regeneration Act 2023. The Biodiversity Gain (Town and Country Planning) (Consequential Amendments) Regulations 2024 made consequential amendments to other parts of the 1990 Act.

Natural Environment and Rural Communities Act 2006

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty to conserve biodiversity on public authorities in England. All local authorities, community, parish and town councils, police, fire and health authorities and utility companies must have regard for the purposes of conserving biodiversity in a manner that is consistent with the exercise of their normal functions.

Section 41 provides a list of species and habitats for which their conservation must be afforded consideration within the exercise of local authority functions. Most notably are water vole, otter, hedgehog, stag beetle, reptiles, common toad, great crested newt, certain bat species, European eel, house sparrow, starling and song thrush, and habitats found extensively in the borough such as acid grassland, ponds, rivers, reedbeds, deciduous woodland and parkland.

Wildlife and Countryside Act 1981

The Wildlife and Countryside Act (WCA) is the primary legislation which protects animals, plants and habitats in the UK. Part One of the act gives protection to native species and controls the release of non-native species.

- **Section 1** prohibits the intentional killing, injuring or taking of any wild bird and the taking, damaging or destroying of the nest (whilst being built or in use), or eggs. It is an offense to disturb nesting birds listed on Schedule 1 of the act. The Schedule 1 listed species perhaps most likely to be encountered by the departments of Richmond Council include but are not limited to:
    - Kingfisher – River habitats, works within close proximity to riverbank;
    - Red kite – Tall trees, woodland and parkland;
    - Barn owl – Woodland and parkland with old, hollowed trees; works in and around the Royal Parks;
    - Peregrine – Tall buildings
    - Black redstart – crevices and cavities in buildings
    - Short-toed treecreeper – Mature woodland
    - Cetti's warbler – Works in close proximity to reedbeds, ponds and lakes.

Offenders may face a fine and/or 6 months imprisonment, or 2 years and/or an unlimited fine on indictment.

- **Section 9** prohibits the intentional killing, injuring or taking, possession and trade of wild animals listed in Schedule 5. In addition, places used for shelter and protection on safeguarded against damage, destruction and obstruction, and animals must not be disturbed whilst occupying those spaces. Species most likely to be encountered during the functional undertakings of London Borough of Richmond-Upon-Thames include:
    - Water vole and otter – Work within close proximity to river habitats;
    - Bats – Work affecting buildings and trees, removal of hedgerows, external lighting, new street lighting, work affecting river habitats;
    - Reptiles* (slow worm, grass snake, common lizard, adder) – Work affecting grassland, scrub, bracken, woodland edge and brownfield habitats, work in close proximity to railway and river embankments. (*Protected from killing, injuring and sale only).
    - Great crested newt – Work affecting ponds and habitat within 250m of ponds.

Offenders may face a fine and/or 6 months imprisonment, or 2 years and/or an unlimited fine on indictment.

- **Section 14** prohibits causing plants listed on Schedule 9 Pt. II to grow or spread in the wild. This list includes regularly encountered species such as:
    - Japanese knotweed
    - Himalayan balsam
    - Giant hogweed
    - Floating pennywort
    - Elodea waterweeds
    - Montbretia
    - Three-cornered garlic
    - Variegated yellow archangel
    - Cotoneaster species

Any works which cause spread of these species through disturbance or transportation are likely to constitute an offence. Schedule 9 invasive species are often overlooked in aquatic habitats where they may be less conspicuous, in particular in ponds and lakes.

Offenders may face a £5000 fine and/or 6 months imprisonment, or 2 years and/or an unlimited fine on indictment.

Environmental Protection Act 1990

The Environmental Protection Act (EPA) sets out the appropriate methods of removing, transporting and disposing of 'controlled waste', which includes any soil, water or plant materials contaminated with certain invasive weeds including Japanese knotweed and giant hogweed. It places a duty of care on the producer and anyone they employ to dispose of soil or other material at a licenced facility who must deal with it in an appropriate way.

The EPA also empowers local authorities and the Environment Agency to issue notices to landowners requiring them to take action to control the spread of invasive plants.

Protection of Badgers Act 1992

This act protects badgers from killing, injuring, taking or treating cruelly, and prohibits damage, destruction, disturbance or interference with their setts. There are many badger setts in the borough, including on Council land.

Appendix 2: Types of Ecological Reports

Please see the Council's Local Validation Checklist for the latest requirements.

Ecological Constraints and Opportunities Plan (ECOP)

An ECOP is a useful method of illustrating the key points gathered from PEA baseline studies and may be used to illustrate key constraints and opportunities to consider when proposals are designed.

An ECOP may be quite simple in format and content (e.g. when illustrating relevant ecological features associated with an application for the construction of a single dwelling) or may be extensive in its coverage (e.g. when applied to a large-scale project across a wide area with many ecological features present).

For **major** development, where an Ecological Constraints and Opportunities Plan (ECOP) has been produced at an earlier stage, this is encouraged to be submitted demonstrating what and where the key biodiversity constraints and opportunities are associated with the proposal.

Preliminary Ecological Appraisal (PEA)

Describes a rapid assessment of the ecological features present, or potentially present, within a site and its surrounding area. A PEA is normally made up of a desk study and a walkover survey.

A PEA is normally the first step in assessing the ecological value of a site.

The key objectives of a PEA are to identify:

- the likely **ecological constraints** associated with a project,
- any **mitigation measures likely to be required**, following the Mitigation Hierarchy,
- any additional surveys that may be required and
- opportunities offered by a project to deliver **ecological enhancement**.

A PEA can also be used to inform, for example:

- scoping for an Environmental Impact Assessment;
- an Ecological Impact Assessment (EcIA);
- whether a particular site should be included as a site allocation in a development plan;
- nature conservation management plans;
- sustainability appraisals and ratings assessments (e.g. BREEAM); or
- an assessment of likely compliance with statutory obligations for developments which do not require planning consent or developments utilising Permitted Development Rights, where needed.

PEAs are often conducted alongside a Preliminary Roost Assessment (PRA), or a PRA alone may be appropriate where impacts are likely to affect only bats and/or breeding birds.

The results of a PEA can be presented in a Preliminary Ecological Appraisal Report (PEAR) and/or an EcIA. Where a PEA has been produced the Council requests its submission at validation as either a PEAR or ECIA.

More information:

- Please see the Chartered Institute of Ecology and Environmental Management (CIEEM) webpages for more information.

Preliminary Ecological Appraisal Report (PEAR)

The results of a PEA may be presented in a **PEAR**, which is normally produced to inform an applicant and their design team about the key ecological constraints and opportunities associated with a project, possible mitigation requirements and any further surveys that are required. The PEAR may also be accompanied by an **Ecological Constraints and Opportunities Plan (ECOP)**. If a PEA is required, it is expected that the report and any other survey reports

recommended by the PEA, will be submitted as part of the planning application. If the PEAR and/or additional required surveys are not submitted, the Council's ecologist will request the reports, and this could slow down the application process.

Where additional surveys beyond the PEA are not required, the PEAR will be sufficient for validation.

Preliminary Bat Roosting Assessment

This assessment is an initial survey conducted to evaluate the potential for bats to roost in a structure or site and to record any evidence of bats which might be present. This assessment is often required for planning applications where development activities might impact bat habitats. The goal is to determine if further, more detailed bat surveys are needed.

Where additional surveys beyond the PEA are required, an EcIA must be submitted with the planning application. **Any information relating to badgers must be submitted as a separate document, as this information is legally required to remain confidential.**

Ecological Impact Assessment (EcIA)

EcIA is the process of identifying, quantifying and evaluating the potential effects of development-related or other proposed actions on habitats, species and ecosystems and uses data collected as part of the PEA.

Under normal circumstances surveys should be completed and any necessary measures to protect biodiversity should be in place, or secured through conditions and/or planning obligations, before permission is granted. The need to carry out further surveys should only be secured through planning conditions in exceptional circumstances [2], for example because the survey data will be out of date before implementation.

Where additional surveys beyond the PEA are required, an EcIA must be submitted with the planning application. Any information relating to badgers must be submitted as a separate document, as this information is legally required to remain confidential.

More information:

- CIEEM have produced Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater, Coastal and Marine and an EcIA Checklist.

Construction Ecological Management Plan (CEcMP)

A CEcMP is a working document that considers and details how an applicant will protect species and habitats during construction and/or demolition. CEcMPs should have specific regard to invasive non-native species, detailing method statements regarding protected and priority species and habitats, timeframes and post clearance monitoring.

Landscape and Ecology Management Plan (LEMP) is a document that outlines how landscapes and ecological features of a development site will be managed and maintained over the long term, often as a requirement of planning permission. It ensures that habitats and biodiversity are protected, enhanced, and managed in line with the development's goals and legal requirements.

Habitats Management & Monitoring Plan (HMMP)

A habitat management and monitoring plan (HMMP) is a detailed plan that outlines how the land will be managed over at least 30 years to:

- create and enhance habitats for biodiversity net gain (BNG)
- manage and monitor the BNG

Natural England have created templates for HMMPs and supporting documents.

Ecological Enhancement Statement

2 set out in BS 42020:2013 Clause 9.2.4

This is a local requirement for developments exempt from BNG and/or not required to undertake a PEA. A statement is not required for householder applications (however, such proposals are still expected to deliver ecological enhancements where feasible).

The Statement, which should be proportionate to the scale of the proposed development, outlines measures to protect and enhance biodiversity and geodiversity, including ecological connectivity through habitat corridors and stepping-stone sites. It details what ecological enhancements are proposed and includes a plan indicating where they are to be located. It should cover the specification of the enhancement and provide a maintenance plan.

While not always requiring a qualified ecologist, it should be prepared by someone competent in ecological principles to ensure appropriate and effective measures are being proposed.

Appendix 3: Survey requirements and when to do them (Survey calendar)

The calendar below provides a guide of the seasons to undertake ecological surveys to obtain the most accurate results to support a planning application.

Species or area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Preliminary Ecological Survey												
Botanical Surveys				Sub-optimal	Sub-optimal							
Badgers												
Bats (preliminary roost assessment)												
Bats (hibernation roosts)												
Bats (summer roosts)												
Bats (foraging or commuting)												
Bats (swarming)												
Breeding Birds												
Birds (winter behaviour)												
Birds (migration)												
Hazel dormice												
Great crested newts												
Invertebrates												
Natterjack toads												
Otters												
Protected plants, fungi and lichens												
Reptiles												
Water Voles												
White Clawed Crayfish												
Vegetation												

Table A1: Ecological Survey Seasons

(https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications#consider-if-a-licence-is-likely-to-be-granted-before-you-give-permission)

Appendix 4: Biodiversity on Development sites: A hazard prevention checklist during construction and operation

The checklist below aims to help implement the mitigation hierarchy to avoid impacts and embed mitigation during construction as well as inform the design and location of compensation post construction.

Hazard	Considerations
Construction Phase	
Lighting	Ensure that lighting does not intervene with animal behaviour by minimising light spill and allowing for dark areas around trees and greenspaces.
Vegetation clearing	Ensure that the timing of removal is appropriate to minimise impact and meet legislative requirements so that wildlife is not disrupted i.e. nesting birds. If necessary implement a sensitive vegetation removal method which may also require supervision by the Ecological Clerk of Works (ECoW).
Temporary fencing	Plan locations in advance and ensure fencing is in good condition and not in danger of falling. Ensure fencing reaches fully to the floor to prevent egress and animals accessing construction areas, unless a defined corridor is proposed. In this case, the corridor must be checked daily and any obstructions removed. Ensure any fencing is taught to prevent animals and birds getting tangled.
Temporary offices and compounds	Plan locations in advance and site well away from sensitive areas. Include in Ecology report site plan.
Temporary access for construction vehicles	Ensure access locations are planned in advance and site well away from sensitive areas. Include in Construction Environment Management Plan.
Introduction of imported soils	Ensure that imported topsoil or nutrient-rich topsoil is generally avoided as if it is inappropriate for the site as it can promote the spread of invasive plants. Refer to BS3882:2015 for more information.
Demolition	Ensue that falling materials and storage areas for demolished structures do not cause damage to habitats and wildlife.
Ancillary surfaces	Ensure that their design, location and construction include biodiversity features such as vegetated permeable paving.
Piling/ drilling	Ensure appropriate risk assessment is carried out to ascertain suitable piling/drilling methods. Particular care must be taken when the site is close to sensitive habitats, such as a watercourse, with low vibration methods required and appropriate forward planning essential to avoid certain times of the day/night and year, such as when fish spawning takes place. There may be circumstances when non-invasive methods, such as rafts, are necessary.
Operation Phase	
Landscape management	Ensure that new planting is accompanied with aftercare so that it can successfully integrate with existing wildlife.
Pets	Ensure that scheme design minimises the risk of damage from pets to habitats or nesting boxes by creating buffers.
Public access	Allow for public access to enjoy the amenity value of natural features without damaging such areas.

Table A2: Hazard Prevention Checklist

For more information write to:

Spatial Planning and Design,

Growth and Place Directorate,

Civic Centre,

Twickenham, TW1 3BZ

Telephone: (020) 8891 1411

Email: LocalPlan@richmond.gov.uk

Or visit our website:

https://www.richmond.gov.uk/services/planning/planning_policy