# Objection to Planning Application Reference: 26/02199/OUT – Ravensbourne Place, Land at Hayes Lane and Bromley Common

***Deficiencies in Ecological Competency and Assessment Scope Planning***

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# 1. Foreword

I have a deep knowledge and connection with the Norman Estate, having spent much of my childhood in Oakley House in the 1950s, and beyond, when it was a working dairy farm managed by Mary Langridge. I have lived on the borders of the estate ever since.

I object to this planning application and set out below multiple ecological arguments. I have included an ‘Appendix’ at the end of the document detailing the historical, ecological and scientific significance of the Norman Estate.

I reserve the right to make further submissions at any stage of the planning process, including—but not limited to—responding to the officer's report, or any updates from the applicant.

# 2. Principal Objections

## 2.1 The Scale Disconnect: Associate Membership vs. EIA Scale

#### *2.1.0.0 Summary*

Berkeley's Ecology and Biodiversity Report Section – F: According to the **CIEEM Professional Directory and Competency Framework**, Associate members (ACIEEM) are fully capable professionals, but a 2,200-home cross-decade strategic master plan typically falls under the remit of a Full Member (MCIEEM) or a Fellow (FCIEEM) due to the vast complexities of full Environmental Impact Assessment (EIA) mitigation modelling.

#### *2.1.0.1 In more detail*

According to the CIEEM Competency Framework, Associate members (ACIEEM) are qualified for projects of increasing complexity but are limited to contributing to environmental assessments rather than leading full, complex EIAs. Full (MCIEEM) and Fellow (FCIEEM) members are responsible for leading large-scale ecological assessments and managing complex Environmental Statements.

#### *2.1.0.2 Further detail*

While an Associate member (ACIEEM) is qualified to work independently, the specific wording of the framework exposes strategic vulnerabilities when managing a high-stakes masterplan without senior oversight. The supporting terminology from the official text includes:

**The Distinction in "Complexity" and "Risk":** The core text definitions establish that a **Capable** professional lacks the strategic, systemic risk-management credentials of higher tiers:

> **The "Capable" Definition (ACIEEM Level):** "Has the knowledge and experience to carry out the competence effectively **and independently in routine situations….**..
>
> **The "Proficient" Definition (MCIEEM/Full Member Level):** "Has the knowledge and experience to carry out the competence effectively in **complex, non-routine situations**...

*The wording confirms that an ACIEEM member's baseline is restricted to **routine situations and risks**. A masterplan spanning a highly sensitive river corridor and green belt falls explicitly into the "complex, non-routine" category, making an Associate's autonomous strategic decisions technically vulnerable under the framework's definitions.*

### *2.1.0.3 Strategic and Multi-Disciplinary Scope*

The framework outlines different expectations for handling multi-disciplinary or overarching masterplans:

> **Capable (ACIEEM):** Focuses on "identifying how the competence relates to **their own work and the work of immediate colleagues**."
>
> **Proficient/Authoritative (Senior Technical Leads):** Focuses on "identifying how the competence relates to **wider organizational strategy, other sectors, and disciplines**."

*Because a major masterplan demands integration across landscape architecture, hydrology, and planning policy, the wording shows that a Capable member is only benchmarked against immediate workflows. They lack the explicit CIEEM validation for integrating "wider organizational strategy and other sectors" required at a strategic scale.*

### *2.1.0.4 Responsibility for Critical Evaluation*

The framework sets strict limits on who should critically review high-impact ecological outcomes:

> **Capable (ACIEEM):** "Is able to evaluate **own performance** and identify areas for improvement."
>
> **Proficient/Authoritative:** "Is able to **critically review the work of others**... provides technical leadership."

*The framework's text explicitly ties the authority to critically review major ecological assessments to higher tiers. This supports the argument that leaving strategic conclusions entirely to an unsupervised Associate introduces scope errors, as they are not vetted by CIEEM to act as the final technical reviewer for complex, third-party frameworks.*

### *2.1.0.5 Objection*

**The Objection:** Whilst the author Katie Dalton BSc (Hons) MRSB ACIEEM is a qualified Associate, the sheer scale of the Ravensbourne Place masterplan spans a highly sensitive ecosystem (the River Ravensbourne corridor and significant green belt land). The complexity of coordinating an application of this scale without a more heavily credentialed technical lead or co-signatory (such as a Full Fellow or Principal Ecologist from **Bradley Murphy Design (BMD)**) leaves the strategic conclusions vulnerable to scope errors.

**Environmental Statements:** The Ecology and Biodiversity Report, routinely downplays severe, permanent ecological destruction by balancing it against on-paper, conditional mitigation strategies that cannot replicate the complex biodiversity of Bromley's green belt. I urge Bromley Council to reject this application and protect our local wildlife and designated nature reserves from irreversible displacement.

## 2.2 Severe Underestimation of Impact on Designated Sites & SINCs ("Negligible to Minor Adverse / Not Significant")

#### *2.2.0.0 Summary*

The conclusion that the massive recreational and urban pressures on the River Ravensbourne, Ravensbourne Valley Woodlands, and the Hayes and Keston Commons SINC will be "Not Significant" is entirely unrealistic. Introducing 2,200 new households will inevitably flood these fragile, statutory protected nature reserves with thousands of extra visitors and domestic pets daily.

The report's claim that on-site pathways will contain this recreational pressure is a planning fiction. This influx will cause severe soil compaction, trampling of potentially rare flora if it exists, wildlife disturbance from off-lead dogs, and litter pollution. Furthermore, the fragile River Ravensbourne corridor will face irreversible degradation from toxic urban surface runoff, which cannot be mitigated by simple on-paper "access management."

#### *2.2.0.1 In more detail*

**Designates Sites:** The ecology report openly admits there will be **"increased recreational pressure"** on the River Ravensbourne, Ravensbourne Valley Woodlands, and the Hayes and Keston Commons SINC (Site of Importance for Nature Conservation). Yet, they magically downgrade this threat to **"Not Significant"** by claiming that their on-site footpaths, dog-walking loops, and a few litter bins will stop thousands of new residents from damaging the surrounding ancient woodlands.

**The Myth of On-Site Containment:** The idea that providing "on-site green infrastructure" will stop 2,200 households from leaving the estate is absurd. Thousands of new residents, children, and dog owners will inevitably flood into adjacent, highly sensitive habitats like Hayes and Keston Commons and the Ravensbourne Valley Woodlands. The sheer volume of foot traffic will cause massive **soil compaction**, root damage to ancient trees, and trampling of ground flora, if not rare flora if it exists.

**The "Unmanageable" Dog Problem:** The report mentions "access management" and "managed routes" but entirely ignores the reality of off-lead dog walking. Introducing hundreds of new domestic dogs into sensitive SINCs leads to the constant disturbance of wildlife, nest desertion by birds, and the enrichment of nutrient-poor soils via dog fouling, which chokes out rare wild plants and encourages aggressive weeds.

**Severe Urban Runoff into the River Ravensbourne:** The River Ravensbourne corridor is incredibly fragile. No matter how many "retained buffers" the developer promises, building thousands of homes nearby permanently alters the water table. The river will face severe risks from toxic urban runoff (oils, heavy metals, car pollutants) and microplastics from the development, directly degrading a vital local chalk stream ecosystem.

**The "Litter Monitoring" Illusion:** Claiming that "litter monitoring/removal" through an on-paper management plan (LEMS/HMMP) will mitigate the pressure is a classic buck-passing tactic.

Private estate management companies rarely have the resources or legal mandate to police and clean up plastic pollution, fly-tipping, and vandalism that spills over the development's boundaries into public nature reserves

## 2.3 Manufactured Habitat Framework Assessment ("Moderate Beneficial / Significant")

#### *2.3.0.0 Summary*

The conclusion that replacing a functioning, continuous green belt ecosystem with a high-density housing estate results in a "materially enhanced habitat framework" is ecologically deceptive. This claim relies entirely on a spreadsheet metric that devalues natural, established fields to over-value highly manicured, fragmented urban features. Fabricating tiny, isolated garden borders, decorative orchards, and concrete-lined drainage swales cannot replace the ecological continuity of 10+ hectares of natural paddocks. Furthermore, these engineered habitats take decades to reach maturity, and relying on private LEMS and HMMP enforcement over a 30-year period across a dense residential estate is entirely unenforceable.

#### *2.3.0.1 In more detail*

**Habitats:** By declaring, in the *Ecological and Biodiversity Report* a **"Moderate Beneficial"** and **"Significant"** upgrade to the landscape, the developer uses an automated accounting framework to mask the physical destruction of a real, contiguous ecosystem.

This claim relies on the mechanics of the mandatory Biodiversity Net Gain (BNG) metric. Under this system, developers assign low arbitrary scores to natural, unmanaged green spaces like horse paddocks—often labeling them "species-poor modified grassland"—and high theoretical scores to highly engineered, manicured features (like orchards, SuDS, and rain gardens). They are using an "on-paper" point-scoring victory to justify replacing ancient topsoil with 2,200 concrete building footprints.

**The Fallacy of Over-Valuing "On-Paper" Habitats:** A computer metric can say that a manicured orchard or a concrete-lined swale provides more "biodiversity units" than an old field. However, ecology does not work on a spreadsheet. The existing 10+ hectares of paddocks and hedgerows form a functional, uninterrupted food web. Artificially fragmenting this ecosystem into tiny, isolated garden strips and decorative planting beds breaks ecological continuity, rendering the "enhanced framework" useless for wide-ranging wildlife.

**The Interventions Take Decades to Mature:** The report counts future, unbuilt habitats as if they exist today. Newly planted trees, scrub margins, and complex wetlands take 10 to 30 years of ideal conditions to reach the ecological maturity required to support complex wildlife populations. The loss of the existing habitat is immediate and destructive; the promised benefit is a multi-decade gamble.

**The "30-Year Failure" Risk of Private Management:** The report relies entirely on the Landscape and Ecological Management Plan (LEMP) and the Habitat Management and Monitoring Plan (HMMP). Under BNG rules, these habitats must be managed for 30 years. However, once Berkeley

Homes exits the site, enforcement falls to underfunded local councils and private estate management companies. If residents plant over fence gaps, use pesticides, or pave over grassland, the HMMP fails, and the council lacks the resources to police thousands of private plots.

**The Total Destruction of Soil Structure:** Green infrastructure features built on top of heavily compacted, excavated construction soil will never replicate the biological complexity of natural, ancient topsoil. Stripping the land destroys millions of fungal networks (mycorrhizae), earthworms, and micro-organisms that form the literal foundation of a real habitat framework.

# 2.4 Scientifically Flawed Bat Roosting & Foraging Assessment ("Minor Beneficial to Minor Adverse")

## 2.5 *Summary*

The claim that destroying or disrupting natural roost-suitable trees can be compensated for by artificial bat boxes to achieve a "Minor Beneficial" score is a complete misrepresentation of bat ecology. Artificial boxes cannot replicate the vital microclimates of mature tree cavities. Furthermore, the report's reliance on a "sensitive lighting strategy" to preserve dark corridors is completely unrealistic for an estate of 2,200 homes. The collective skyglow, domestic security lighting, and car headlights will cause irreversible light spill, permanently fracturing critical foraging routes for light-sensitive bat species.

#### *2.5.0.0 In more detail*

**Threat to Bats:** Claiming that building a 2,200-home housing estate will have a **"Minor Beneficial"** effect on bat roosting and downplaying foraging destruction to "Not Significant" is perhaps the most egregious piece of ecological spin in the entire ecological report.

Bats are highly sophisticated, legally protected mammals that are incredibly sensitive to environmental changes. The report uses the classic developer defence: "We might cut down roosting trees, but we will slap plastic bat boxes onto the side of brick houses, so everything balances out." They also rely on a "sensitive lighting strategy" to pretend they can keep a massive, illuminated urban development dark enough for nocturnal mammals.

**The Fallacy of the Bat Boxes vs. Natural Roosts:** The claim that artificial bat boxes or bricks provide a "Minor Beneficial" upgrade over mature, natural tree cavities is a fantasy. Tree-roosting bats rely on the complex microclimates (humidity and temperature regulation) found only in ancient, hollowed-out trees. Artificial boxes are poor substitutes, prone to overheating or freezing, and there is absolutely no guarantee local bat populations will ever adopt them.

**The Impossibility of “Sensitive Lighting” for 2,200 Homes:** The report promises a sensitive lighting strategy to protect the River Ravensbourne corridor and dark green infrastructure. This completely ignores the realities of modern residential developments. Even if street-lights are directional, you cannot control the cumulative sky-glow and light spill from 2,200 households' windows, security floodlights, cars, and lit private gardens. For light-sensitive species (like the Myotis or Brown Long-eared bats), this light pollution permanently destroys their commuting routes and fractures their landscape.

**Severe Loss of Foraging Biomass:** Bats feed on massive quantities of insects. As already pointed out, the development will strip away the underground soil matrix and fields that produce these insects. Replacing dark, insect-rich horse paddocks with tarmac and artificial lighting will decimate the local insect biomass, starving local bat populations and forcing them to abandon the area.

**The Legal Loophole of "Licence-Led Compensation":** The report casually notes that features will be provided as *"licence-led compensation if required."* This is a massive red flag. It means they fully expect to destroy active, legally protected bat roosts and are simply planning to apply for a Natural England derogation licence to do it. It is dishonest to label an action that requires a special legal destruction licence as a "benefit."

## 2.6 Flawed Badger Assessment ("Minor Adverse / Not Significant")

#### *2.6.0.0 Summary*

The report openly admits to an "unavoidable change from the existing open grassland and hedgerow matrix to a residential-led mixed-use development," yet unjustifiably downgrades this devastating impact to "Not Significant." The assumption that forcing established badger clans to abandon ancient, naturally dug setts in favour of man-made "artificial setts" will fully mitigate the damage is unrealistic. The intense squeeze on their territorial footprint will result in severe habitat fragmentation, territorial conflict, and a permanent loss of vital foraging grounds.

#### *2.6.0.1 In more detail*

**Severe Threat to Protected Badgers:** The scale of the construction and the long-term human disturbance from thousands of new residents directly threatens established subterranean badger setts and foraging corridors.

Underground networks are a textbook example of a species vulnerable to "fragility"—they cannot withstand heavy localized disruption, and a "mitigated" small green space amidst a high-density urban development cannot substitute for their natural open foraging range.

Badgers and their setts are strictly protected under the *Protection of Badgers Act 1992*. It is a criminal offence to damage, destroy, or obstruct access to a sett, or to disturb a badger while it is occupying one. Berkeley Homes' Environmental Impact Assessment or any other plan must be robustly challenged if it suggests that mitigation or relocation can successfully preserve the clans.

**Habitat Fragmentation & Foraging Loss:** Badgers rely on established, contiguous territories. Replacing open horse paddocks and natural topsoil with concrete, tarmac, and private gardens permanently removes foraging grounds (earthworms, insects). The Berkeley Ecology report claims "enhanced foraging habitat" remains, but a smaller, squeezed footprint cannot support the same population density.

**The Reality of Artificial Setts:** The ecology report suggests "artificial sett provision where required." Forcing badgers to abandon an ancient, naturally dug network of setts for a man-made

alternative is highly disruptive. There is no guarantee a displaced clan will successfully adapt to or accept an artificial sett.

## 2.7 Speculative Bird Assessment ("Minor Beneficial")

#### *2.7.0.0 Summary*

The conclusion that replacing an undisturbed natural ecosystem with 2,200 homes will be "Minor Beneficial" to birds defies conservation reality. This assessment ignores the permanent displacement of declining farmland and ground-nesting species (such as Skylarks) that rely strictly on open paddocks and will never utilise artificial bird boxes on brick houses. Furthermore, minimising the impact of domestic cat predation from thousands of new households and constant human/dog disturbance across the remaining green spaces as "not significant" contradicts established data from wildlife organisations like the RSPB.

#### *2.7.0.1 In more detail*

**Threat to the Bird Population:** The Environmental Statement's conclusion that residual operational effects on birds will be 'Minor Beneficial' is ecologically fundamentally flawed. The assessment relies on a 'habitat mosaic' that values common urban species over the displacement of declining farmland and ground-nesting birds currently relying on these open fields. Furthermore, dismissing the introduction of hundreds of domestic cats and the recreational pressure of thousands of new residents as 'localised' and 'not significant' defies established conservation data regarding urban predation and wildlife disturbance."

**The Reality of Cat Predation:** The report downplays domestic cat predation as a "localised pressure." This is ecologically dishonest for a 2,200-home development. Statistically, thousands of new homes will introduce hundreds of outdoor cats. Studies from organizations like the **RSPB** show that cats have a devastating impact on garden and ground-nesting birds. Minimizing this as "not significant" ignores the sheer density of predators being introduced to a previously safe area.

**Loss of Specialist and Ground-Nesting Species:** Open grasslands, horse paddocks, and quiet hedgerows in Bromley provide vital habitats for declining farmland and ground-nesting species (such as Skylarks, Meadow Pipits, or Yellowhammers). These birds **will not** use artificial bird boxes built onto brick houses or integrated into busy public parks. The "beneficial" habitat they claim to create only helps urban-adapted birds (like Pigeons, Starlings, and Blue Tits), while entirely wiping out the specialist species currently using the site.

**Disturbance from "Recreational Activity":** The report notes that recreational activity will be a pressure but won't be significant. In reality, thousands of people and their dogs walking through the remaining "retained and enhanced" green spaces will create constant human disturbance. This causes "nest desertion" and prevents sensitive bird species from feeding or breeding successfully.

**The "On-Paper" Nature of Enhancements:** The report states benefits will occur "where secured through ecological enhancement details." This means the benefits are entirely conditional. Developers frequently promise high-quality landscaping and bird boxes to clear the planning stage,

but the long-term maintenance of these features is rarely enforced adequately once the houses are sold.

## 2.8 Unrealistic Hedgehog Assessment ("Minor Beneficial")

#### *2.8.0.0 Summary*

Claiming the development offers a "Minor Beneficial" outcome for hedgehogs based on theoretical "boundary permeability measures" (fence gaps) is entirely speculative. Hedgehogs require vast, unfragmented home ranges of up to 30 hectares to survive. Replacing natural topsoil and wild fields with roads, hardstanding, and private gardens permanently strips away their macroinvertebrate food source. Furthermore, relying on future homeowners to preserve fence gaps is unenforceable, and the dramatic influx of vehicular traffic on new estate roads will inevitably cause a severe spike in hedgehog mortality.

#### *2.8.0.1 In more detail*

**Threat to Hedgehogs:** I am concerned that the ecology report is attempting to argue that a completely wild, unmanaged green space has less ecological value than a carefully engineered urban matrix. They reason that by adding "hedgehog highways" (13x13cm gaps in garden fences), hedgehogs will suddenly have a paradise of interconnected gardens to roam. This completely ignores the harsh realities of what happens when wild habitat is replaced by a massive residential estate.

**Severe Habitat Fragmentation:** Hedgehogs require huge home ranges—typically between 10 to 30 hectares—to forage for food. While the report promises "gaps in fencing", this relies entirely on future homeowners maintaining those gaps. In reality, homeowners routinely block fence gaps to keep in pets, lay down gravel boards, or replace fences entirely, fracturing the promised "hedgehog highway" network.

**Loss of Foraging Ground to Hardstanding:** The open horse paddocks and natural topsoil surrounding Norman Park are rich in earthworms, beetles, and macroinvertebrates—the primary food source for hedgehogs. Converting fields into 2,200 concrete building footprints, tarmac roads, driveways, and artificial turf lawns permanently destroys their foraging grounds, risking local starvation.

**The "On-Paper Only" Conditional Clause:** The report explicitly states these measures are only beneficial *"where secured through detailed landscape or boundary treatment details."* This is a major red flag. It means the developer is not guaranteeing these protections right now; they are pushing them down the road into future "reserved matters" clauses that are rarely monitored or strictly enforced by cash-strapped local councils once construction concludes.

**Dramatic Spike in Road Mortality:** Hedgehogs are slow-moving and exceptionally vulnerable to vehicular traffic. Introducing hundreds, if not thousands, of cars and new internal access roads into a dark, quiet green belt site inevitably leads to an increase in road traffic casualties, completely wiping out any theoretical "minor benefit."

## 2.9 Contaminated Amphibian Assessment ("Minor Beneficial")

#### *2.9.0.0 Summary*

The claim that engineered wetland features and Sustainable Drainage Systems (SuDS) will create a "Minor Beneficial" environment for common amphibians is ecologically dishonest. SuDS features are designed to capture toxic surface water runoff from urban roads, meaning any breeding or foraging opportunities will occur in water contaminated with heavy metals, oils, and tyre microplastics. Furthermore, the introduction of thousands of brick foundations, garden walls, and road gully pots creates deadly physical barriers to annual amphibian migration.

#### *2.9.0.1 In more detail*

**Threat to Amphibians:** The report uses a clever rhetorical trick here: it highlights that "baseline amphibian presence is likely to be limited" (meaning they haven't found many amphibians *yet*) to argue that anything the developer builds must be an improvement. They want the planning committee to believe that engineered drainage basins (SuDS) and ornamental ponds will turn a housing estate into an amphibian paradise.

In reality, replacing natural, unpolluted topsoil and dark fields with an urban environment creates a hostile landscape for frogs, toads, and newts.

**The Toxic Reality of SuDS:** Sustainable Drainage Systems (SuDS) and attenuation basins are designed to capture and hold polluted surface water runoff from roads, driveways, and roofs. This runoff is heavily contaminated with oil, heavy metals, brake dust, and tyre microplastics. Forcing amphibians to forage, disperse, or breed in what are essentially toxic sediment traps will lead to high mortality rates, not a "beneficial" outcome.

**Severe Dispersal Barriers:** Amphibians migrate between breeding ponds and terrestrial winter habitats (like log piles and dense scrub) every year. Replacing open horse paddocks with thousands of brick foundations, concrete garden walls, tarmac roads, and dropped kerbs creates impenetrable physical barriers. Countless amphibians will become trapped in gully pots (road drains), which is a major cause of toad population declines in the UK.

**Loss of Vital Overwintering Habitat:** Amphibians spend the majority of their lives on land, not in water. They rely on undisturbed, dark, damp areas beneath the soil, logs, and thick grass to survive the winter. Strip-mining the topsoil across the Hayes Farm paddocks to lay foundations permanently destroys these ancient hibernation sites.

**Domestic Pet and Human Pressures:** Just like the bird populations, amphibians will face intense pressure from the introduction of hundreds of domestic cats (who hunt frogs and toads) and the heavy use of remaining green spaces by thousands of residents and dogs, leading to habitat degradation.

# 2.10 Illogical Reptile Assessment ("Neutral to Minor Beneficial")

### *2.10.0.0 Summary*

The "Neutral to Minor Beneficial" assessment for reptiles is entirely unfounded. A lack of reptile detections during the survey programme does not prove absence; it merely reflects the elusive nature of these species in large paddock environments. It is ecologically illogical to claim that the total destruction and compaction of mature ground-level microhabitats by heavy construction machinery will "increase suitability over time." Any common reptiles currently on-site will be destroyed during construction, and any future populations would face immediate extirpation from the massive influx of domestic cat predators.

### *2.10.0.1 In more detail*

**Threat to Reptiles:** The survey uses a single year of surveys (in this case, 2026) to claim a species is "absent." It then uses that assumed absence to argue that the development cannot possibly harm them, while simultaneously taking credit for creating a "better" habitat for them in the future.

**The Fallacy of "Negative" Surveys:** A lack of reptile sightings during the 2026 survey programme does not prove absence. Reptiles (like slow-worms, common lizards, and grass snakes) are notoriously elusive, highly weather-dependent, and difficult to detect in dense, expansive grass and paddock environments. Dismissing their presence based on a limited survey window is bad science and violates the precautionary principle of conservation.

**Destruction of Microhabitats Before "Suitability" Begins:** The report claims the urban landscape will increase suitability "over time." However, reptiles require undisturbed, mature ground structures to survive. The heavy machinery, widespread topsoil stripping, and structural compaction required to build 2,200 homes will completely obliterate the existing ground-level microhabitats (thick root mats, rodent burrows, tussocky grass) that reptiles rely on. Any reptiles currently surviving quietly on the site will be killed or displaced long before these theoretical "grassland margins" mature.

**The "SuDS Trap" and Thermal Requirements:** Reptiles are cold-blooded and rely entirely on open, sunny, undisturbed banks to bask and regulate their body temperature. The report mentions Sustainable Drainage Systems (SuDS) as a benefit. As noted with amphibians, SuDS accumulate toxic urban runoff. Furthermore, engineered urban drainage basins surrounded by footpaths, domestic pets, and human activity do not provide the quiet, safe thermal basking spots that reptiles require.

**The Domestic Cat Predation Factor:** Even if common reptiles did attempt to re-colonise the "diverse habitat mosaic" over time, they would face an impossible survival barrier. Slow-worms and common lizards are incredibly easy prey for domestic cats. Introducing hundreds of new outdoor cats into a compressed urban-green boundary ensures that any emerging reptile population would be swiftly decimated.

# 2.11 Flawed Invertebrate Assessment ("Minor Beneficial")

### *2.11.0.0 Summary*

Labeling the existing green space as "species-poor modified grassland" to justify a "Minor Beneficial" conclusion for invertebrates is highly misleading. This assessment entirely ignores the total destruction of the living, underground soil matrix caused by mass excavation and concrete foundations. Furthermore, introducing extensive street and residential lighting into a dark green belt site will severely disrupt nocturnal insects, while the inevitable introduction of domestic garden pesticides and contaminated road runoff ensures that the promised "diverse habitat mosaic" will become an ecological sink rather than a benefit.

### *2.11.0.1 In more detail*

**Threat to Invertebrate:** The reports use the term "modified grassland" as a disparaging label for horse paddocks, grazing land, or lawns. By framing the existing soil and fields as low-value, they are implying that their highly manicured, artificial landscaping—complete with concrete edges, ornamental plants, and woodchips—is an ecological upgrade.

**Destruction of the Living Soil Matrix:** Invertebrate life is not just about the flowers on top; it depends heavily on undisturbed topsoil, root systems, and subterranean microhabitats. Mass grading, heavy machinery compaction, and the laying down of thousands of concrete foundations across the Hayes Farm paddocks will completely obliterate the underground ecosystems that support earthworms, beetles, and burrowing insects.

**The Myth of "Native Planting" in Urban Centres:** While the report promise a "floristically diverse habitat mosaic," the actual reality of a 2,200-home estate consists of fragmented garden borders, paved driveways, and ornamental shrubs. These manicured spaces do not replace the unique, continuous wild forage needed by specialized local pollinators and insects.

**Severe Light Pollution Impact:** Invertebrates—particularly nocturnal species like moths, beetles, and lacewings—are intensely vulnerable to artificial light at night (ALAN). Turning dark, quiet green belt paddocks into an illuminated residential zone causes severe disruption to feeding, mating, and navigation, completely undermining any theoretical "minor benefit" from planting.

**Chemical Contamination and Pesticides:** The report ignores the chemical reality of a massive housing development. Private gardens frequently introduce widespread domestic pesticides, weedkillers, and slug pellets. Furthermore, toxic surface runoff entering the proposed Sustainable Drainage Systems (SuDS) features will poison the very wetland and marginal habitats the developer claims will "benefit" local invertebrates

# 2.12 Inadequate Invasive Species Risk Assessment ("Negligible / Not Significant")

### *2.12.0.0 Summary*

Dismissing the long-term operational threat of non-native invasive species as "Negligible" based strictly on baseline legal compliance for Japanese knotweed is a major oversight. Mass earthworks

and extensive soil relocation significantly increase the risk of spreading dormant rhizomes. Furthermore, the assessment completely fails to account for the operational risk of introducing 2,200 residential properties, which act as a direct pathway for invasive garden escapes (e.g., Himalayan balsam, Cotoneaster) into adjacent green belt spaces and local watercourses, threatening native flora.

#### *2.12.0.1 In more detail*

**Non-Native Invasive Species:** The ecology report is attempting to dismiss the risk of Non-Native Invasive Species (INNS) by stating they will do the bare minimum required by law to handle Japanese knotweed. They claim that because legal compliance is "embedded," the long-term risk to the surrounding area magically becomes **"Negligible."**

In reality, a massive construction project of 2,200 homes poses a significant threat of spreading invasive species into the surrounding Bromley green belt, Norman Park, and the Ravensbourne River catchment.

**The High Risk of Soil Disturbance and Spread:** Japanese knotweed spreads incredibly easily via tiny fragments of root (rhizomes) hidden in the soil. Mass excavation, grading, and heavy vehicle movement across Hayes Farm can easily spread dormant fragments across the entire site and into neighbouring properties before anyone realizes it has happened. Treating this as a simple monitoring issue underestimates how aggressive this plant is during large-scale ground disruption.

**The Introduction of New Invaders and Garden Escapes:** The report focuses entirely on Japanese knotweed because it is legally mandated. However, it completely ignores the long-term operational risk of introducing 2,200 private gardens. Residential developments are a primary source of invasive garden escapes (such as Himalayan balsam, Cotoneaster, or Spanish bluebells) that quickly spread out into adjacent woodlands and hedgerows, choking out native British flora.

**Lack of Long-Term Enforcement:** "Follow-up treatment" sounds reassuring on paper, but eradication of species like Japanese knotweed takes years of dedicated chemical treatment and monitoring. Once Berkeley Homes finishes construction and hands the management over to a private management company or individual homeowners, strict biosecurity protocols often break down due to a lack of local authority oversight.

***Risks to the Local Catchment:*** The site is linked to local water courses. Invasive species seeds and fragments can easily enter the newly constructed Sustainable Drainage Systems (SuDS) and wash directly into local river systems, causing widespread ecological damage far beyond the boundaries of the development site.

## 2.13 Trees claimed to be ‘Not Veteran’ / F4.24

### *Summary*

The proposed development site contains numerous mature, large-girth trees within field boundaries that the applicant's ecology report has inadequately assessed by dismissing them as isolated and non-cohesive (Para F4.24). This assessment lacks the necessary, quantifiable metrics, such as stem

girth measurements and veteran features, required to properly determine the ecological status of these trees.

### *2.13.0.0* In more detail

***Stem Girth Measurements:*** *A report cannot definitively state that a tree is "not ancient or veteran" without recording its girth.*

**What was missing:** The specific circumference of the tree trunks measured at 1.5 metres above ground level. Girth is the primary indicator of a tree's potential ancient or veteran status. For instance, an oak tree with a girth over 4.5 metres is potentially a veteran, and over 6 metres is highly likely to be ancient. By omitting these measurements, the report lacks the scientific data required to dismiss their status.

**Species-Specific Age Classification:** The report groups Oak, Ash, and Hazel together vaguely as "varying in age and size."

**What was missing:** A breakdown of age classification tailored to each specific species. Different tree species age at vastly different rates. A birch tree can be "ancient" at 150 years old, an oak at 400 years old, and a yew tree at 800 years old. A Hazel tree with a large coppice stool can be hundreds of years old. The report should have evaluated each species against its individual lifespan criteria rather than applying a blanket statement.

**Comprehensive Checklist of Veteran Features:** While paragraph F4.24 mentions "hollow trunks" and "split limbs," it uses them only to assess bat roosting potential, completely missing their significance as veteran tree indicators.

**What was missing:** A systematic audit of veteran characteristics, which include:

- Heart-rot or a completely hollow trunk.
- Major deadwood in the canopy or stag-headedness (dieback of the top branches).
- Fungal fruiting bodies (which indicate wood-decay fungi essential to old tree ecosystems).
- Sap runs, bark tears, and deep crevices.

The presence of these features *is* what defines a veteran tree biologically, regardless of its absolute age. By acknowledging these features exist but denying veteran status, the text stands in direct self-contradiction.

**Open-Grown vs. Cohesive Habitat Assessment:** The report attempts to dismiss the value of the trees by stating they "are relatively isolated and do not form a cohesive treed habitat block."

**What was missing:** An acknowledgement of the distinct ecological value of "open-grown" or "field boundary" trees.

The Woodland Trust explicitly highlights that open-grown trees in hedgerows or fields develop wide, sweeping canopies and unique ecological niches that differ from tightly packed woodland trees. Dismissing them because they do not form a "cohesive block" is a methodological error.

# 3. General Comments

## 3.1 Disguised Ambition

The proposed development disguises a much wider ambition. While Berkeley Homes seeks permission for an initial 150 acres, but their registered UN1 option encompasses an area I have measured to be close to 500 acres. Granting this first phase sets a dangerous precedent, creating an inevitable "foot in the door" that paves the way for unchecked, creeping urban expansion.

*Figure 1: The map associated with the UN1 registered with HM Land Registry. The areas covered by the deed have been coloured Red for clarity.*

**The Hidden 500-Acre Footprint:** When developers secure a UN1 option through HM Land Registry, it signals long-term strategic control. The disparity between the 150-acre planning application and the 500-acre option boundary is a classic tactic. It isolates local objections to a smaller "palatable" footprint while locking in surrounding land for future phases.

**The Danger of the "Thin End of the Wedge":** If planning is granted for the initial phase, it establishes a catastrophic precedent for the remainder of the site. Local planning authorities often struggle to defend adjacent greenfield or rural land once a developer is already established on-site. Granting consent creates a domino effect that includes:-

**The Precedent Effect:** The principle of development on the site will have been established, making subsequent applications for the remaining 350+ acres incredibly difficult to refuse.

**Infrastructure Creep:** Once roads, utility networks, and services are installed for 150 acres, the argument to "utilize existing infrastructure" to expand across the remaining acreage becomes functionally irresistible.

**Erosion of Planning Policy:** Local protections and zoning constraints are systematically chipped away, as the cumulative impact is viewed not as a massive single development, but as "logical extensions" or "rounding off" of an existing site.

## 3.2 Applying Ratcliffe's 'Fragility'

This development violates the core principle of fragility by permanently removing an irreplaceable open-pasture habitat. Migratory paths cannot simply adapt to urban sprawl; once the ecological geometry of this resting zone is fragmented by 2,200 homes, the local population collapses irreversibly. (See Alignment with Ratcliffe in the Appendix section).

## 3.3 Irreversible Ecological Damage to Fragile Ecosystems and Protected Species

The proposed 2,200-home Ravensbourne Place development by Berkeley Homes will drastically alter the area, irreversibly damaging the Norman Estate's scientific value by destroying contiguous habitats, fragmenting migration corridors, increasing urban disturbances, and permanently removing the pristine "living laboratory" conditions currently vital for urban ecology research. (See *Scientific Importance of the Norman Estate* in the Appendix section).

## 3.4 Misapplication of "Grey Belt" or "Green Belt" Development

The developer may argue the land is low-quality or "Grey Belt". However, the presence of these species proves that its open, pastoral nature serves a vital ecological function as a urban-rural buffer zone. The included aerial view of the Norman Estate (Appendix )shows clearly how the estate prevents 'urban sprawl'.

NPPF rules state that inappropriate development on the Green Belt should be rejected unless "very special circumstances" can be demonstrated. Housing targets do not outweigh the statutory protections of local wildlife and irreplaceable habitats.

## 3.5 Disruption of Wildlife Corridors

Overlapping ecotones will be cut off, trapping species in isolated pockets. Amphibians attempting to migrate between wetlands and woodlands, and pollinators relying on contiguous grassland scrub, will encounter lethal urban barriers (roads, fences, and buildings). (See *Biodiversity Corridors* in the Appendix section)

## 3.6 Loss of "Living Laboratory" Baseline

The development will disrupt undisturbed conditions, preventing accurate study of how wildlife relies on natural buffer zones to access vital resource. (See *Scientific Importance of the Norman Estate* in the Appendix section).

## 3.7 Loss of Grazing Pastures & Foraging Zones

The grasslands are not sterile monocultures; they support deep root systems, diverse turf heights, and terrestrial insect biomass necessary to sustain higher trophic levels (such as bats, owls, and the estate's declining swallow populations).

Replacement of the grazing pastures removes critical landing, nesting, and foraging zones for local species and migratory birds.

Development is not just threatening a patch of grass; it us threatening a rare, tightly interwoven eco-hydrological matrix.

Slicing through even one component (e.g., building on the pastures or altering the water table of the floodplains) has the potential to cause the ecological collapse of the adjacent ancient woodlands and wetlands. Under Ratcliffe's 1977 guidelines (see Appendix ), this entire system qualifies as a rare, highly sensitive landscape asset that policy dictates must be strictly protected from fragmentation

## 3.8 Fly-tipping and Dumping – Impact on Ancient Woodland

The proximity of back gardens leads to the dumping of garden waste, which introduces alien plant species and causes damaging nutrient enrichment in the sensitive woodland soil. Urbanisation is linked to a higher prevalence of non-native plant species escaping into the woods, such as *Rhododendron ponticum*, which deplete soil moisture and block light to the forest floor.

## 3.9 Hydrological Changes - Impact on Ancient Woodland

Alterations to local drainage and the water table from nearby construction can severely stress or kill ancient trees.

# 4. Appendix

*For clarity, The Norman estate and the Rookery Estate are closely connected but not exactly the same. The Rookery Estate was the specific, historical Norman family ancestral home and private grounds on Bromley Common, while the "Norman estate" is a broader term encompassing their wider landholdings. To be consistent, this document refers to the proposed development site and wider adjoining land as 'The Norman Estate'*

# 5. Aerial View of the Norman Estate

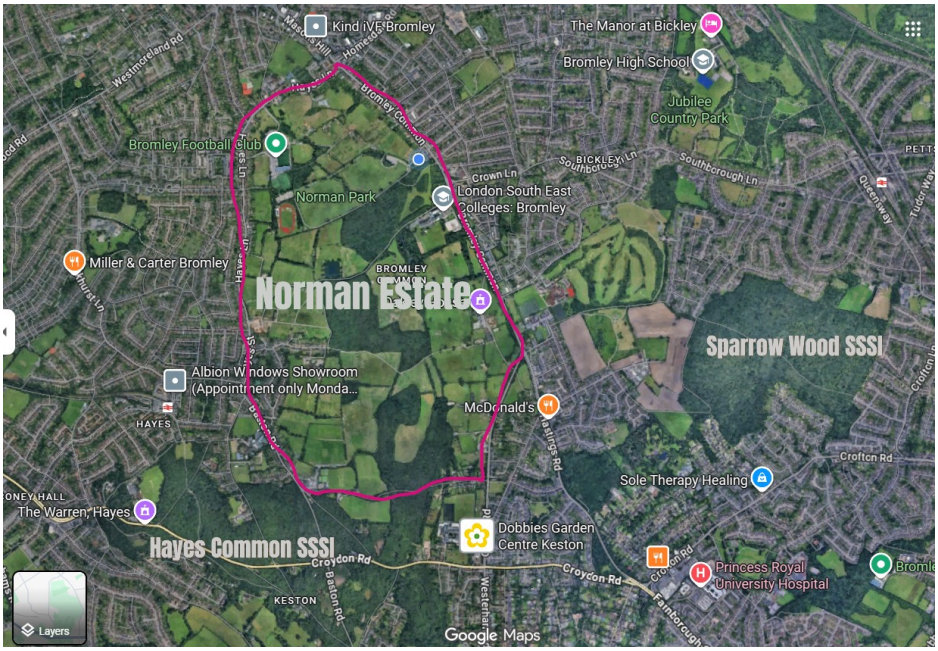


*Figure 2: Aerial View of the Norman Estate*

# 6. Ecological Importance of the Norman Estate

The Norman Estate represents a rich high-biodiversity landscape mosaic, within a vital scientific and policy context. In ecological terms, the "scientific context" refers to how a site measures up against established, objective criteria for biodiversity and ecosystem function. The "policy context" translates ecological vulnerability into statutory protections, designations, and planning guidelines that governing bodies must enforce.

This mosaic landscape is composed of diverse, interconnected patches of distinct habitat types, such as **woodlands**, **grasslands**, **wetlands** and **floodplain**. Its ecological structure and function is characterized by:

***Ancient woodlands, wetlands, floodplain and open pasture:***

Supporting a diverse array of core habitats.

***Patches, corridors and matrix:***

The estate aligns with the patch-corridor-matrix model because it mimics natural ecological zoning within a managed environment. It divides the landscape into distinct, interacting zones that support biodiversity, facilitate wildlife movement, and separate developed areas from sensitive ecological reserves.

***Ecotones (Edges):***

Dynamic transition zones between habitats that boost overall species richness. The landscape acts as a transition zone between several distinct habitats, creating rich "edge effects" across the area:

***Riverine Transitions:***

The River Ravensbourne runs through the estate. Where the open grass banks meet the water and adjacent riparian vegetation, it creates a linear wetland-to-grassland ecotone highly valuable for local wildlife.

***Woodland and Hedgerow Edges:***

The estate borders mature woodland patches like Scrogginhall Wood and local college grounds. The sharp transition from dense trees and scrub to open recreational grass or farmland provides vital shelter, foraging corridors, and nesting sites for birds and small mammals.

***Agricultural/Parkland Boundaries:***

The borderlands consist of open fields, sports facilities, and older established hedgerows. These interface zones support a higher density of biodiversity than the open fields alone.

***Habitat Connectivity:***

Local biodiversity plans (like those guiding the Bromley Biodiversity Plan 2021-2026) identify these edges as crucial green corridors connecting urban spaces with the wider Green Belt.

***Structural Heterogeneity:***

The estate and the surrounding Ravensbourne Valley exhibit a high degree of structural heterogeneity. Physical complexity and varying 3D arrangement of habitats (both horizontally and vertically) which allows for its rich biodiversity.  The structural heterogeneity across this localized landscape is driven by several distinct factors:-

*The River Ravensbourne:* Both vertical & horizontal complexity. The river naturally meanders creating a variety of aquatic microhabitats, such as shallow riffles (fast-flowing, oxygenated water) and deep pools.

*Ecotone Gradients:* The riverbanks transition gradually from aquatic zones to marginal vegetation, wet meadows, and scrub, providing high structural variation for birds, amphibians, and invertebrates

*The Ancient Woodlands: Canopy to floor variations:* The surrounding ancient woodlands (such as Scrogginhall Wood, Fishers Wood, Brook Wood and Padmall Wood) are structurally complex.

They feature multiple vertical layers: a tall, mature canopy, a dense mid-story of shrubs and saplings, and a complex ground layer of ferns, deadwood, and bryophytes.

*Microhabitats:* The presence of ancient and veteran trees—along with fallen limbs, rot holes, and decaying wood—creates diverse niches necessary for fungi, invertebrates, and roosting bats.

*Mosaic of Open Spaces & Edges:* Landscape variety: Beyond the dense woods and waterways, the estate features amenity grasslands, sports pitches, and hedgerows. This creates highly diverse "edges" (ecotones) between the woodlands, grasslands, and aquatic zones, which generally support more species than any single uniform habitat alone.

*Dynamic Disturbance:* The Norman Estate (which encompasses the River Ravensbourne corridor and surrounding parklands) acts as an active, localized dynamic disturbance. Rather than a static environment, this zone experiences human-driven pressures and natural fluctuations that repeatedly alter the physical habitat and biological communities thus preventing habitat stagnation, creating opportunities for successional species maintaining a varied landscape structure.

# 7. Scientific Importance of the Norman Estate

The Norman Estate acts as an essential ecological bridge between the fragmented environments of the London basin and the North Downs. Its 200-hectare landscape features a unique, interconnected mosaic of diverse habitats—including **ancient woodlands**, **wetlands**, **grasslands**, and a vital river **floodplain**.

This structural diversity provides a unique, highly localized haven for biodiversity within the intensely urbanised London sprawl. While much of the capital suffers from heavy fragmentation and isolated green spaces, the Norman Estate’s contiguous, overlapping ecotones (transitional areas between environments) offer a rare, continuous corridor where wildlife can thrive without crossing major urban barriers.

For researchers and conservation scientists studying urban ecology, this estate presents an unparalleled living laboratory. The estate serves as an exceptional site for observing how species move from one habitat type to another, such as amphibians migrating between aquatic/wetland areas and terrestrial woodlands, or pollinators moving across grasslands and scrub boundaries. By studying these species movements, scientists can better understand how ecological networks interact and how animals utilize "buffer zones" to navigate between different vital resources.

# 8. The River Ravensbourne

The stretch of the River Ravensbourne within the Norman Estate is a vital ecological corridor that links ancient floodplain woodlands, filters urban runoff, and provides a rare, continuous wildlife habitat in South East London.

Its unique environmental importance lies in several interconnected features:

**Ancient Woodland Ecosystems:**

The river’s path through Barnet Wood to Fishers Wood connects to the broader ancient floodplain woodlands. Dominated by alder and aspen, these areas act as a sponge to regulate water flow, filter pollutants, and support a diverse range of plant and insect life.

**Biodiversity Haven:**

The mingling of open parkland and dense woodland creates an ideal edge-habitat. The river corridor allows species such as kingfishers, grey herons, and various waterfowl to move safely through the borough. It also serves as an important foraging route for bats and local amphibians.

**Natural Flood Management:**

By allowing the river to interact with its floodplain, this section mitigates downstream flooding, which is crucial in highly urbanized catchments where rainfall runs off hard surfaces.

The preservation of this specific river corridor is essential for maintaining the ecological health and climate resilience of the wider Ravensbourne catchment.

# 9. Biodiversity Corridors

The estate’s ancient woodlands and historic pastures act as a vital ecological network, allowing flora and fauna to thrive and migrate safely. Together, these habitats function as an interconnected green corridor, bridging isolated wildlife populations.

On a broader scale, the estate operates as a vital ecological bridge, reconnecting fragmented natural areas throughout the wider region. By sitting between designated Sites of Special Scientific Interest (SSSIs) such as Keston and Hayes Commons and the Crofton and Sparrow Woods SSSIs, the estate prevents these important conservation areas from becoming isolated "islands" of biodiversity. It provides a seamless route for species to migrate, feed, and breed, which ultimately bolsters the long-term ecological resilience of London's Green Belt.

The estate's ancient woodlands and pastures are ecological strongholds. The undisturbed soils and veteran trees provide complex, high-quality microhabitats for fungi, invertebrates, and breeding birds. The pastures, with their scattered trees and scrub, offer vital foraging grounds and sunlit refuges that support pollinators, amphibians, and small mammals. Because these habitats offer a continuous supply of decaying wood and diverse floral resources, they sustain a much richer biodiversity than intensively managed land.

By creating a varied mosaic of habitats, the estate facilitates the essential movement of wildlife. Species like bats, badgers, voles, and woodland birds rely on these interconnected spaces for nesting, roosting, and seasonal foraging. The woodland edges, hedgerows, and open pastures allow animals to disperse safely, preventing the genetic isolation of small populations. This continuous network enables wildlife to adapt to environmental changes and move freely across the landscape.

# 10. The Norman Estate's Alignment with Derek Ratcliffe's *A Nature Conservation Review* (1977)

Natural England references Derek Ratcliffe's *A Nature Conservation Review* (1977) because it established the foundational scientific criteria used today to evaluate, select, and protect the UK's most valuable wildlife habitats, such as Sites of Special Scientific Interest (SSSIs)

Ratcliffe formalized a consistent, systematic checklist to evaluate sites objectively. These primary evaluation criteria include:

**Size:** Larger habitats support wider, more stable ecosystems.

**Diversity:** Habitats with a high variety of species and physical features hold greater conservation value.

**Naturalness:** Sites undisturbed by modern human modification are prioritized.

**Rarity:** The presence of rare or highly localized species or geography immediately elevates the importance of a site.

**Fragility & Typicalness:** Consideration of how easily the ecosystem can be damaged, and how well the site represents a standard natural community type.

## 10.1 How the Norman Estate Aligns

### Typicalness

The Norman Estate aligns with Ratcliffe's (1977) typicalness criterion through its representation of characteristic southern English lowland meadows, riparian corridors, and fragmented ancient woodland belts. The surrounding area acts as a green buffer that preserves urban-fringe habitat connectivity within Greater London.

### Diversity

The Norman Estate and wider Bromley region align with the diversity criteria in Ratcliffe's *A Nature Conservation Review* (1977) by supporting varied flora and fauna across alluvial corridors and urban green spaces. Management strategies, including native micro-forest creation and varied verge management, enhance these ecological niches, aligning with the principle that varied, species-rich habitats hold higher conservation value. For more details, visit the **Bromley Biodiversity Plan 2021-2026**.

### Size

The Norman Estate in Bromley (chiefly anchored by the 50-to-56-hectare *Norman Park*) and its surrounding green belt (such as the adjacent Hayes Farm, Elmfield Wood, and nearby Jubilee Country Park) align with **Ratcliffe**'s size criterion in the following ways:

**Habitat Diversity and Ecotones:** According to Ratcliffe, size directly drives diversity because larger areas can accommodate a wider variety of distinct communities and plant species. The scale of the Norman Estate—with its open amenity grasslands, mature tree belts, and the revitalized River Ravensbourne running through it—creates complex boundary habitats (ecotones). These transitions between aquatic, woodland, and grassland habitats support a significantly higher species count than smaller, isolated fragments.

**Corridors and Spatial Continuity:** Ratcliffe's size criterion is most effective when evaluated within the wider landscape's spatial context. The Norman Estate does not exist in a vacuum; it acts as an extensive contiguous "green wedge" that connects smaller, fragmented woodlands like Elmfield Wood. This expansive, interconnected corridor allows animal movement and seed dispersal, effectively mitigating the ecological isolation of smaller urban nature reserves.

**Buffer Capacity Against Urbanization:** In urban environments, large sites naturally endure less intense human disturbance per unit area than smaller ones. By spanning 200 hectares, the Norman Estate functions as a large buffer protecting sensitive riparian and woodland zones from the detrimental edge effects of surrounding urban developments in Bromley

## Fragility

In his seminal work *A Nature Conservation Review* (1977), Derek Ratcliffe defined "fragility" as the intrinsic vulnerability of ecosystems to degradation or destruction through human activity and environmental change. It highlights how easily a habitat's ecological integrity can be fractured, and how difficult—if not impossible—it is to reverse those losses.

The Norman Estate provides a stark, living illustration of Ratcliffe's definition. The estate's history and current environmental pressures align precisely with this concept, demonstrating how incremental human interventions disrupt delicate ecological balances.

The fragility of the Norman Estate is clearly evidenced through past, recent, and pending ecological impacts:

The loss of **Great Crested Newts,** once in abundance in Lords Wood, due to past pheasant breeding**.** Great Crested Newts are highly specialized amphibians that rely on a pristine network of clean, undisturbed breeding ponds and rich terrestrial foraging grounds.

The intensification of Lords Wood for game-bird rearing compromised this fragile dynamic. Pheasant breeding typically introduces high predator densities, causes nutrient enrichment of water bodies, and alters the structure of the woodland floor. Because the species' ecological tolerances are so narrow, this specialized human intervention effectively wiped out a population that was once thriving, embodying Ratcliffe's warning that fragile ecosystems degrade rapidly under targeted pressure.

*It should be noted that nearby Sparrow Wood was designated SSSI status by Natural England (then English Nature), partly due to its fragility and from threat of development.*

## Rarity:

### *Rarity of the Structural "Mosaic Effect"*

In modern conservation science, a single isolated habitat patch (like a standalone wood or a single pond) has limited capacity. The true value and rarity of the Norman Estate area lies in its unfragmented, multi-habitat matrix.

**The Ecological Link:** Animals do not live in just one habitat. Amphibians spend winter in the deadwood of **ancient woodlands**, migrate across **pastures** to forage, and breed within seasonal **wetlands**. Migratory birds like swallows nest in adjacent farm structures and skim over **floodplains** and pastures to capture emerging aerial insects.

**The Rarity Alignment:** Finding these four entirely distinct, high-functioning ecosystems interconnected without being severed by dual carriageways, concrete culverts, or housing estates is an extreme rarity in the South East of England. Ratcliffe valued sites that preserve these complex, fluid boundaries.

### *Ancient Woodlands as Irreplaceable, Rare Baselines*

**Ancient woodlands** (land that has been continuously wooded since at least 1600 AD) are legally classified as an irreplaceable habitat.

**The Ecological Link:** These woods hold highly complex, undisturbed soil profiles, vast fungal mycorrhizal networks, and slow-colonising specialist flora (like bluebells, wood anemones, and wild garlic).

**The Rarity Alignment:** Because you cannot artificially recreate centuries of undisturbed soil ecology, ancient woodland is nationally scarce. When embedded alongside damp pastures and floodplains, it creates a incredibly rare wet-woodland transition zone that hosts highly specialised invertebrate populations.

### *Wetlands and Floodplains as Vanishing Hydrological Systems*

Historically, Britain’s lowlands were defined by dynamic, seasonal water movements. Modern agriculture and urban planning have systematically drained, paved over, and channelled rivers into concrete pipes, making natural **wetlands and floodplains** exceptionally rare.

**The Ecological Link:** Floodplains act as natural safety valves, absorbing excess water, filtering nutrients, and creating ephemeral silt ponds. These wet flushes support unique marsh plant communities and vital breeding grounds for macro-invertebrates.

**The Rarity Alignment:** Preserving a natural, un-built floodplain immediately adjacent to ancient woodland and semi-improved pastures is a top-tier conservation asset under Ratcliffe’s guidelines. It represents a vanishing relic of the historical English lowlands.

### *Pastures as Essential Trophic Matrix Buffers*

Low-intensity grazing **pastures** provide the connective tissue holding the woodlands and wetlands together.

**The Ecological Link:** These grasslands are not sterile monocultures; they support deep root systems, diverse turf heights, and terrestrial insect biomass necessary to sustain higher trophic levels (such as bats, owls, and the estate's declining swallow populations).

**The Rarity Alignment:** In a landscape surrounded by suburban sprawl, open pastoral spaces are usually the first to be targeted by developers. Under Ratcliffe's framework, keeping these pastures unploughed and unpaved is critical because they preserve the spatial integrity of the rarer surrounding habitats.

## 11. MAGIC Map: Norman Estate is a ‘Priority Habitat Network ‘

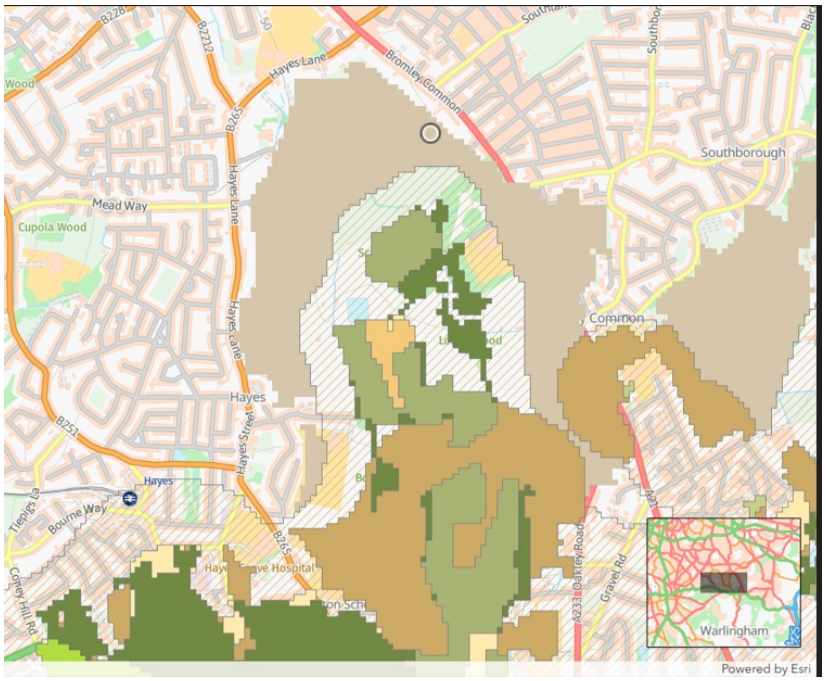


*Figure 3: Priority Habitat Network Recorded on GIGL*

Specific colours to denote the habitat type and various hatch patterns to show different network zones for biodiversity action.

**Lowland Dry Acid Grassland / Lowland Meadows** (shades of **orange/yellow** or **light green**).

**Network Enhancement Zone 1 (Close Diagonal Cross-Hatching):** High-priority land parcels surrounding or connecting existing primary habitat patches. Action here focuses on creating *new* primary habitats to expand the footprint of places like the local woodlands or common land.

**Solid Dark Brown**

Solid dark brown fill represents land parcels located within close proximity to existing primary habitats that have been identified as highly suitable for habitat re-creation.

Because this zone targets active, high-priority expansion right next to existing core habitats, it is frequently singled out by local authorities and land managers as a primary location for delivering Biodiversity Net Gain (BNG) creation units or securing targeted environmental land management grants.

**Network Enhancement Zone 2 (Wide Diagonal Cross-Hatching):** Areas slightly further out but still structurally viable for improving wider connectivity between isolated wildlife sites.

**Solid buff-coloured.** Natural England's Habitat Networks (Combined Habitats) map. A solid buff-coloured fill indicates 'Restorable Habitat', signifying areas with high potential for successful restoration to native priority habitats. This classification identifies degraded sites, such as fragmented woodland or grassland around the Norman Estate, that hold specific ecological indicators for restoration.

## 12. Norman Estate Floodplains

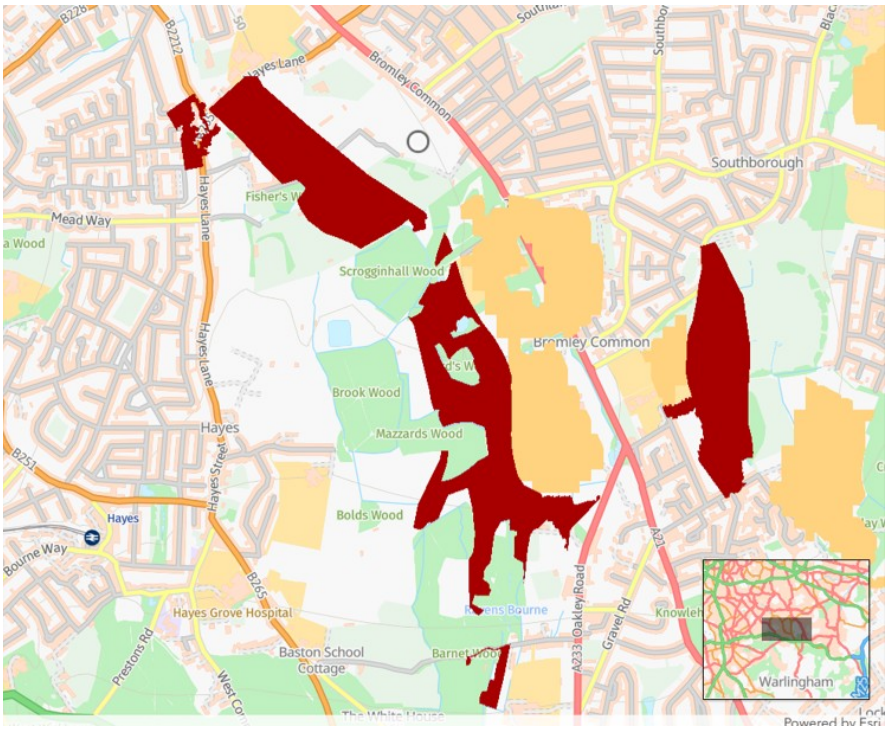


*Figure 4: Floodplains of the Norman Estate*

# 13. Impact Risk Zones

The Norman Estate falls within TWO overlapping Impact Risk Zones (Marked in Purple). Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) are for local planning authorities (LPAs) to determine if a proposed development is likely to affect a terrestrial SSSI .

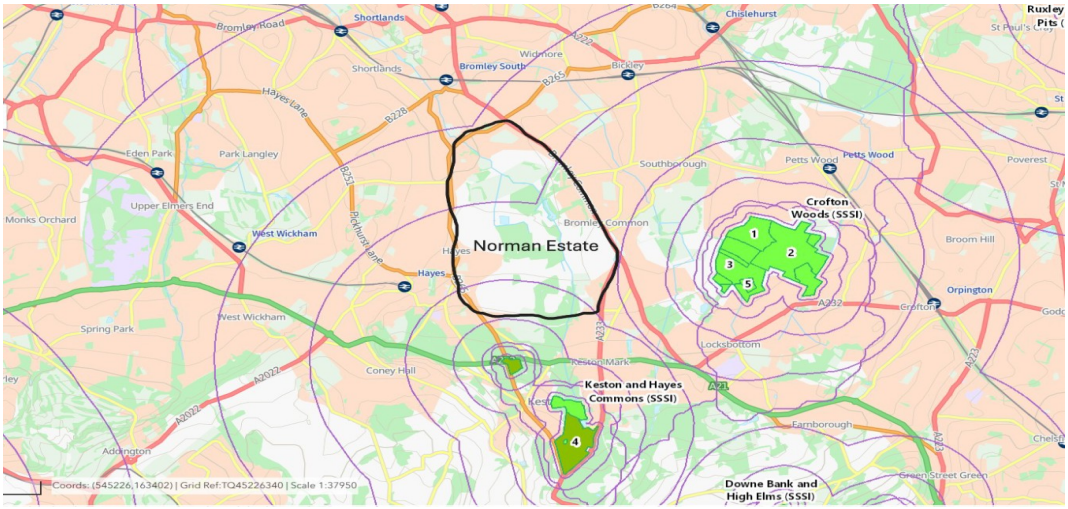


*Figure 5: MAGIC map showing Impact Risk Zones from nearby SSSI's Sparrow Wood and Keston Common.(Impact lines shown in purple)*

# 14. Ancient Woodlands

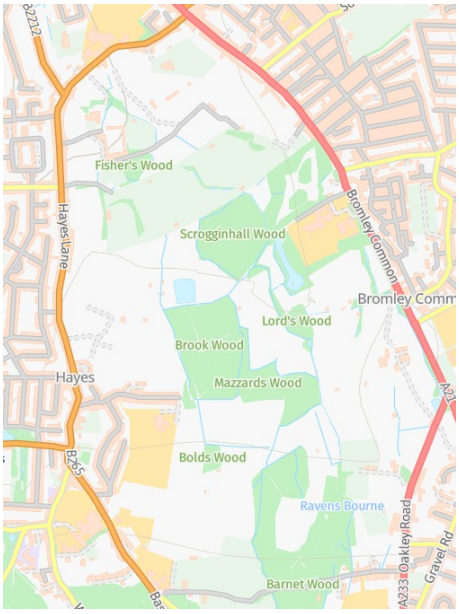


*Figure 6: Historic Woods of the Norman Estate Recognised by Natural England*

## 14.1 Scrogginhall Wood

Scrogginhall Wood is part of a cluster of ancient floodplain woodlands situated along the River Ravensbourne. Its history is defined by its role as a functional wetland and its unique continuity of traditional management.

It is an ancient, coppiced woodland, part of a larger area rich in natural history, featuring rare habitats like bog, wet meadow, heathland and acid grassland, important for its biodiversity and linked to ancient human activity. It's known for its alder and aspen trees, managed for centuries, and sits near Norman Park, with the Ravensbourne flowing through, historically connected to features like a lake created for The Rookery estate in the 1750s.

### Key Historical & Ecological Aspects

• *Ancient Woodland:* Scrogginhall Wood has been designated as ancient woodland, meaning it has been continuously wooded since at least 1600, supporting unique plant and animal life. The wet environment supports a diverse range of plants.

• *Coppicing:* The wood is actively managed through coppicing (cutting trees to ground level to encourage new growth), particularly for alder and sweet chestnut, which is unusual and valuable. Unlike many urban woods, Scrogginhall and its neighboring woods (Brook and Fishers Woods) are notable for still being under active *coppice management*.

• *River Ravensbourne:* The wood's history is intertwined with the River Ravensbourne , which flows through it, featuring earthen banks with exposed roots and a bed primarily composed of clay and gravel, shaping its floodplain and creating diverse habitats.

• *Habitat Diversity:* It's a Local Wildlife Site (LWS) due to its mix of habitats, including **rare** boggy areas, wet meadows, and acid grassland, classified as part of a Metropolitan SINC, the **highest tier of local nature designation** in London, indicating it is of borough-wide and regional importance.

• *Roman & Early History:* The area around the Ravensbourne has evidence of ancient human settlement, with links to potential Roman activity (like the supposed Noviomagus) and medieval land use.

• *Nearby Features:* The wood connects to other ancient woodlands like Fishers Wood and Brook Wood.

• *Ecological Niche:* Unlike many upland woods, Scrogginhall is a **rare** example of a wet woodland or floodplain forest.

• *Tree Species:* The wood is dominated by alder and aspen, species specifically adapted to the damp conditions of the Ravensbourne's banks. Sessile oak is found on higher ground further from the river.

### Scrogginhall Wood Fauna

The wood serves as a **"green lung"** and a corridor for wildlife movement through Bromley.

• *Invertebrates:* The river surface is frequently described as alive with *darting flies*, while the presence of dead wood and ancient trees provides essential habitats for *beetles, spiders***,** and other invertebrates. Species recorded include the *Painted Lady*, *Gatekeeper, Small Skipper*, *Essex Skipper*, *Purple Hairstreak* and more recently *Brown Hairstreak.* The *Buff-tip Moth, Buff-tailed Bumblebee*, and *Bombus hortorum* (garden bumblebee) are also present. The *Leopard Slug* and various caterpillars (such as gatekeeper and skipper caterpillars found on cocksfoot grass) are part of the local ecosystem.

• *Mammals:* The mature trees and hollows in the pollarded oaks provide nesting and roosting sites for *birds***,** *bats***,** and small mammals. *Toads* are common, particularly in wet habitats. *Common lizards* in vegetation-free clearings, while *slow worms* have been recorded.

• *Aquatic Life:* While the waters of the Ravensbourne here are often shallow, the river's natural course and diverse substrates (sand, silt, and gravel) support a range of riparian species.

• *Conservation Status* As of 2025–2026, the wood is part of larger local conservation efforts, including the *Bromley Biodiversity Plan (2021–2026)*, which aims to protect these habitats from urban development pressures.

### Scrogginhall Wood Flora

The active coppice management encourages a rich ground flora, including species such as:

*Lily-of-the-valley, Solomon's-seal, Marsh-marigold found in abundant quantities in the wettest areas), Dyer's greenweed, Yellow pimpernel, Wood sage, Water mint , Wood Anemone (Anemonoides nemorosa),* Common Bluebell (*Hyachronoides non-scripta*), Hedge Woundwort (*Stachys sylvatica*), Wood Spurge (*Euphorbia amygdaloides*), Lords-and-Ladies (*Arum maculatum*), Common Male Fern (*Dryopteris filix-mas*), Broad Buckler-fern (*Dryopteris dilatata*), Swan's-neck Thyme-moss (*Mnium hornum*), Bramble (*Rubus fruticosus agg.*), Common Ivy (*Hedera helix*)

## 14.2 Brook Wood

Brooks Wood is thought to be remnant of the ancient *Great North Wood*. It is an area of secondary woodland and green-space and as of 2026, the site is managed under the framework of the Bromley Biodiversity Plan (2021–2026), which prioritizes the protection of local habitats and species-rich corridors. It represents a historical landscape of ancient forest, vital watercourses.

It is recognized as a site of importance for nature conservation within the borough's wider ecological network. While it is primarily characterized as secondary woodland and scrub, it plays a vital role as a wildlife corridor connecting to other nearby woodlands and green-spaces.

Managed "Nature Friendly Verges" and woodland edges support a variety of pollinators, including species like the Meadow Brown and Red Admiral butterflies and more recently the Brown Hairstreak butterfly. Also declining species such as *Stag Beetles* and *Hedgehogs*,are likely inhabitants of Brook Wood due to its established woodland and scrub structure.

The presence of large *pollarded* oaks in the vicinity often serves as a living historical record, traditionally used to mark ancient boundaries between parishes or farm estates

• *Canopy Species:* Dominated by *Pedunculate Oak* and *Silver Birch*, characteristic of the London Clay and Blackheath Beds found in this part of the borough. Other prevalent tree species include Ash, Hazel, and Beech. Also found are wild cherry, silver birch, sycamore, and wild plum along the boundaries.

• *Understory & Flora***:** Includes *Holly, Hazel, and Rowan*. Ground flora typically features species like bluebells (in spring), bracken, and various grasses.

• *Scrub & Verges:* Peripheral areas are often managed as *Nature Friendly Verges*, which are cut once annually to support pollinators and increase floral diversity.

### Brook Wood Fauna

Known for a wide array of fauna, including various mammals, birds, amphibians, and a particularly rich invertebrate population. The site's biodiversity is enhanced by active coppice management.

Common and notable mammals found in the wood and surrounding areas include:

• *Badger, Fox, Hedgehog, Shrew, Mole, Wood mouse, Bank vole, Roe deer (in the wider area)*

### Brook Wood Flora

Characterised by a deep clay depression that feeds seasonal water directly into the **River Ravensbourne** and heavily dominated by a birch and oak canopy, it shares a highly continuous wetland baseline with its neighbours. Notable records from the **Bromley Biodiversity Plan** and regional audits include the rare **Tiered Tooth** fungus found on dead wood, alongside standard ancient semi-natural ground indicators:

*Wood Anemone*, D*og's Mercury*, Native *English bluebells, ferns, sedges, Lily-of-the-valley, Solomon's-seal, Marsh-marigold*, Sanicle (*Sanicula europaea*), Tiered Tooth (*Hericium cirrhatum*), Wood Anemone (*Anemonoides nemorosa*), Hedge Woundwort (*Stachys sylvatica*), Common Male Fern (*Dryopteris filix-mas*), Hart's-tongue Fern (*Asplenium scolopendrium*), Swan's-neck Thyme-moss (*Mnium hornum*), Bramble (*Rubus fruticosus agg.*), Common Ivy (*Hedera helix*)

## 14.3 Mazzards Wood

Mazzards Wood is part of the broader tapestry of North West Kent’s ancient and secondary woodlands.

• *Ancient Roots***:** Much like neighbouring sites such as *Sparrow Wood*, parts of Mazzards Wood are classified as *ancient semi-natural woodland*, meaning the land has been continuously wooded since at least 1600.

• *The "Mazzard" Name***:** The wood is uniquely named after the *Mazzard cherry*, a local variety of wild cherry (*Prunus avium*). Historically, these trees were cultivated in the area, and the wood served as a source for fruit and timber.

• *Manorial History*: Historically, Bromley’s woodlands were often managed as "wood pasture" or common land under the Manor of Bromley. In the 19th and early 20th centuries, as the surrounding Harvington and Petts Wood estates were developed, Mazzards Wood remained as a critical green buffer.

## Flora and Tree Canopy

• *Mature Native Stands:* The south-eastern section features a stunning canopy of towering *Pedunculate Oaks*, *Beech*, and *Ash* trees.

• *The Mazzard Cherry:* Local conservation efforts have focused on reintroducing and protecting the **rare** Mazzard cherry variety within the wood to maintain its namesake.

• *Understory:* The woodland floor is rich with ancient woodland indicators, including *bluebells*, *wood anemone*, and *wild garlic* (ramsons). Copses of *hazel* are present, some of which show signs of historical coppicing.

• *Invasive Species Management:* As of 2026, ongoing management is required to control invasive species like cherry laurel and rhododendron, which can stifle native ground flora.

## Mazzard Wood Fauna

The wood supports a wide variety of birds typical of the North Kent landscape, including the *Great Spotted Woodpecker*, *Green Woodpecker*, *Nuthatch*, *Little* and *Tawny Owl*.

The mature, decaying wood provides critical roosting sites for bats, including the *Common Pipistrelle* and *Noctule*. The wood also provides a corridor for foxes and badgers moving between Bromley's urban fringes. The presence of deadwood (fallen branches and standing dead trees) is vital for saproxylic beetles and fungi, which are key indicators of a healthy, aging forest ecosystem.

• *Priority Habitat:* Mazzards Wood is mapped as *Priority Habitat Deciduous Woodland* under the *UK Biodiversity Action Plan (BAP)*.

• *Wildlife Corridors:* The wood is documented as being a critical link in the "Nature Friendly Verges" and green corridor trials conducted by Bromley Council to connect fragmented habitats across the borough.

## Mazzard Wood Flora

Because it shares the identical clay and acidic soil profiles of the interconnected Brook Wood, Woodcock Grove, and Barnet Wood, it features a similar ancient understory community:

Mazzard Wood hosts several notable species and *Ancient Woodland Indicators.* Species like:

*Wood Anemone*, D*og's Mercury*, Native *English bluebells, ferns, sedges* and In damper patches, *Male-fern* and *Wood sedge* are common, Wild Cherry / Mazzard (*Prunus avium*), Common Bluebell (*Hyacinthoides non-scripta*), Wood Anemone (*Anemonoides nemorosa*), Hedge Woundwort (*Stachys sylvatica*), Bush Vetch (*Vicia sepium*), Common Male Fern (*Dryopteris filix-mas*), Bracken (*Pteridium aquilinum*), Swan's-neck Thyme-moss (*Mnium hornum*), Bramble (*Rubus fruticosus agg.*), Common Ivy (*Hedera helix*).

## 14.4 Fisher’s Wood

Fishers Wood remains a crucial part of the interconnected ancient floodplain woodlands working in tandem with the adjacent Brook Wood and Scrogginhall Wood to preserve a rare riverside ecosystem. It is historically recognized as ancient floodplain woodland, a designation for areas that have been continuously wooded since at least 1600.

The wood was historically part of the agricultural and timber-producing landscape which began significant enclosure in 1764 and 1821. Enclosure (or inclosure), is where land that was once "common" or farmed in open strips was fenced off and turned into private property. The specific years 1764 and 1821 typically represent the dates when local Enclosure Acts or "Awards" were passed for a specific parish or town.

Its survival is largely attributed to centuries of active coppice management, a practice that continues today to maintain its specific ecological structure and prevent the overgrowth of a single dominant canopy. Large pollarded oaks found within the wood serve as living historical markers, traditionally used to delineate field and parish boundaries in the 18th and 19th centuries. The wood primarily consists of coppiced alder**.**

The wood sits on London Clay, which naturally supports damp, heavy soils ideal for oak and alder-dominated woodlands

### Habitat Types

• *Wet Woodland:* The damp valley floor supports *alder* and *aspen*, species that thrive in the waterlogged soils of the floodplain.

• *Riparian Corridor:* The river provides a "blue-green" corridor, facilitating wildlife movement between Norman Park and the larger green spaces further south.

### Fishers Wood Flora

Because it directly interfaces with Norman Park and the ancient, pollarded oaks of Scrogginhall Wood, it shares a highly continuous wetland baseline. Notable records include the naturalised **Juneberry**, tracked historical grass matrices like **Giant Fescue**, and standard damp understory indicators:

*Lily-of-the-valley, Solomon's-seal, Marsh-marigold found in abundant quantities in the wettest areas), Dyer's greenweed, Yellow pimpernel, Wood sage, Water mint,* Juneberry (*Amelanchier canadensis*), Giant Fescue (*Festuca gigantea*), Wood Anemone (*Anemonoides nemorosa*), Common Male Fern (*Dryopteris filix-mas*), Broad Buckler-fern (*Dryopteris dilatata*), Hart's-tongue Fern (*Asplenium scolopendrium*), Swan's-neck Thyme-moss (*Mnium hornum*), Bramble (*Rubus fruticosus agg.*), Common Ivy (*Hedera helix*)

### Fisher’s Wood Fauna

Fisher’s Wood is defined by its role as a core component of the Ravensbourne River wildlife corridor. Its status as an ancient floodplain woodland provides unique niches for specialized species. *Greater Stag Beetle, Odonata* (dragonflies and damselflies) *Purple Hairstreak butterfly, Kingfishers, Great Spotted* and Green Woodpeckers, *Nuthatch, Treecreeper, Bullfinch. Noctule and*

*Pipistrelle Bats, Bank Voles, Wood Mice, and Shrews,Tawny Owl, Herpetofauna (Amphibians & Reptiles), Common Frogs, Common Toads, Smooth Newts, Grass Snakes.*

# 15. Barnet Wood

Barnet Wood, an Ancient Semi-Natural Woodland that remains a key ecological asset. It serves as a vital component of the Ravensbourne River corridor, providing high-quality habitat and connectivity for local wildlife. It acts as a primary "stepping stone" in a chain of woods including Woodcock Grove, Mazzards Wood, and Brook Wood, which together form a significant green belt stretching toward Hayes.

The woodland structure is characteristic of lowland broadleaf forest on *London Clay* soils.

- *Canopy Layer:* Predominantly *Pedunculate Oak* (*Quercus robur*) and *Hornbeam* (*Carpinus betulus*). Historical evidence of coppicing is visible, a traditional management practice that preserves the wood's ancient character.
- *Understory:* Typical species include *Hazel* (*Corylus avellana*), *Holly* (*Ilex aquifolium*), and *Hawthorn*.

*Ancient Woodland Indicators:* The ground flora is a key diagnostic feature for its ancient status. In spring, the wood features *Bluebells* (*Hyoides non-scripta*) and *Wood Anemone* (*Anemone nemorosa*). Other indicator species found in similar ancient woods include *Butcher's-broom* (*Ruscus aculeatus*) and *Wild Service-tree* (*Sorbus torminalis*).

## Barnet Wood Fauna

*Common Pipistrelle, Soprano Pipistrelle, Noctule, Brown Long-eared Bat, badgers, roe deer. Hedgehogs, Tawny Owl, Nuthatch, Treecreeper, Stock Dove, Great Spotted Woodpeckers, Green Woodpeckers, Blackcap, Chiffchaff, Song Thrush, Mistle Thrush, frogs, toads, newts.*

## Barnet Wood Flora

Rrecorded ground flora, ferns, and bryophytes (mosses and liverworts) within Barnet Wood and its immediate, continuous wet-floodplain environmental corridor (the Ravensbourne Valley Woodland cluster.
*Bluebells (Hyoides non-scripta), Wood Anemone (Anemone nemorosa), Dog's Mercury (Mercurialis perennis), Lesser Celandine, Wood Sorrel (Oxalis acetosella). Wild Service-tree (Sorbus torminalis), Butcher's-broom (Ruscus aculeatus), Pendulous Sedge (Carex pendula) , Marsh-marigold (Caltha palustris), Red Campion, Honeysuckle.* Bitter Vetch (*Lathyrus linifolius var. montanus*), Wild-sorreool (, *acetosella*), Solomon's-seal (*Polygonatum multiflorum*), Hard Fern (*Blechnum spicant*), Hart's-tongue Fern (*Asplenium scolopendrium),* Common Liverwort (*Marchantia polymorpha*), Swan's-neck Thyme-moss (*Mnium hornum*), Bramble (*Rubus fruticosus agg.*), Common Ivy (*Hedera helix*)

# 16. Butterflies

The *Brown Hairstreak butterfly ( Thecla betulae )* is one of the protected species known to inhabit the verges of Elmfield Wood with a recent egg count in access of 100. Eggs have also been found in hedgerows within the proposed development site. This butterfly depends entirely on *Blackthorn (Prunus spinosa),* a deciduous shrub in the rose family, for survival.

The results of a 50 year butterfly research showing rare species present on the Norman Estate together with migration paths can be found here:-

LondonButterFlySurvey