



**Herts &
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Wildlife Trust

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Proof of Evidence in respect of Ecology and Nature Conservation

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Development Site:

Maple Lodge Maple Lodge Close Maple Cross Hertfordshire

Application Reference:

APP/P1940/W/21/3289305.

18/03/2022



Creating a wilder Hertfordshire and Middlesex

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1	Qualifications	Page 3
2	Purpose of Evidence	Page 4
3	Relevant planning policy and legislation	Page 5
4	The Forester Moth	Page 6
5	Biodiversity Net Gain	Page 10
6	Offset payment to achieve biodiversity net gain	Page 12
7	Conclusion	Page 14

1. Qualifications

- 1.1 My name is Matthew Dodds. I hold a BA (Hons) degree and a MSc in Biological Recording from Birmingham University. I am a member of the Chartered Institute of Ecology and Environmental Managers.
- 1.2 From 1998 to 2015 I worked for Aylesbury Vale District Council as an ecologist, where part of my role was to scrutinise planning applications, and to represent the council in planning appeals planning inquiries and local plan inquiries regarding biodiversity. During this time I also worked for several other local planning authorities on a consultancy basis.
- 1.3 From 2015 to the present I am employed by the Hertfordshire and Middlesex Wildlife Trust as their Planning and Biodiversity Manager. My duties include responding to planning applications on behalf of the Trust and managing the local wildlife sites project.
- 1.4 I have extensive experience of the planning process and the obligations of LPA's in considering the impacts of development on biodiversity. I sit on the Royal Society of Wildlife Trusts planning working group and the CIEEM Biodiversity Net Gain Working Group. I am the author of 'The Impact of Development on Biodiversity Supplementary Planning Document' for Stevenage Borough Council which provides a comprehensive procedure for the application of Biodiversity Net Gain in the borough. This procedure includes a biodiversity offset cost calculator, adapted from the Warwickshire cost calculator. Warwickshire County Council have been operating a mandatory biodiversity net gain process by utilising the requirement for net gain in NPPF since 2012. The calculator is therefore a robust and tested mechanism for calculating accurate biodiversity offset unit costs.
- 1.5 I have extensive experience and high level of competency in conducting botanical surveys in roles delivering and managing local wildlife sites projects. I deliver training in botanical survey, botanical community identification and ecological management implication for the project in this role and have done so for many years.
- 1.6 I am a founder member of the North Bucks Bat Group and have held a variety of scientific project licenses for projects in Bucks, Herts and Middlesex over several years and currently hold one for the Hertfordshire barbastelle project. I was a licenced bat worker trainer for 15 years and have trained over 40 people to obtain their bat license. I hold a bat class licence and a licence to disturb hibernating bats. I also hold a Great Crested Newt licence.

2. Purpose of my evidence

- 2.1 Herts and Middlesex Wildlife Trust has consistently opposed the development proposal due to its impact on biodiversity. I have therefore been asked by Maple Cross Residents Environment Group to act as their expert witness regarding the impact of the development proposal on biodiversity.
- 2.2 The evidence provided will support the statement of case regarding the impact of the development on the biodiversity of the site, namely:
- a) The development will result in the local extinction of a species of principal importance for the conservation of biodiversity in England, the forester moth.
 - b) Biodiversity net gain has not been adequately or accurately assessed
 - c) The suggested compensation payment is not based on any costed compensation plan.

3. Relevant planning policy and legislation

3.1 There are two main policy sources which are relevant to this case.

3.2 The National Planning and Policy Framework states:

3.3 *Para 1. The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied*

174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity

180. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

3.4 The Three Rivers District Local Plan [CD 4.25] states:

3.5 TRDCLP DM6

a) Development that would affect a Site of Special Scientific Interest, Local Nature Reserve, Local Wildlife Site or protected species under UK or European law, or identified as being in need of conservation by the UK Biodiversity Action Plan or the Hertfordshire Biodiversity Action Plan, will not be permitted where there is an adverse impact on the ecological, geological or biodiversity interests of the site, unless it can be demonstrated that:

i) The need for the development would outweigh the need to safeguard the biodiversity of the site, and where alternative wildlife habitat provision can be made in order to maintain local biodiversity; and

ii) Adverse effects can be satisfactorily minimised through mitigation and compensation measures to maintain the level of biodiversity in the area.

3.6 In accordance with these policies, it is therefore incumbent on the applicant to prove how they will mitigate and compensate for the impacts on the forester moth, a species of principle importance for the conservation of biodiversity in England in accordance with Section 41 of the NERC Act 2006 [CD 7.2.19].

3.7 The applicant must also demonstrate how a measurable biodiversity net gain will be achieved.

The Forester Moth

- 3.8 The Forester moth was discovered on the site in 2021. It was last recorded in 1976 in Hertfordshire and is of the highest conservation significance for the area.
- 3.9 No viable mitigation or compensation scheme has been proposed for this species. Therefore, the development proposal is not consistent with either NPPF or the local plan.
- 3.10 It has been intimated that ‘appropriate conservation measures may be successful in providing new suitable habitat resources’ in the response of the retained ecological advisors for the council (HECOL) in Section 3.3 of their response of 14.9.21 [CD 2.2.21].
- 3.11 However, the measures proposed are speculative and are not evidence based, and should not be considered as a legitimate compensation strategy for the species for a number of reasons.
- 3.12 There is actually only one stated example of a potentially viable compensation scheme, from a site near Middlesbrough of an unplanned and accidental colonisation of a site. This is not a model for conserving and enhancing this critical Forester population in Hertfordshire – as required by NPPF and the Local Plan. This is one example from hundreds of miles away in a very different landscape. No information is provided on this scheme to inform whether it is a valid source of information. The failed Warwickshire experience is a far more valid model and should be the default position.
- 3.13 To address this lack of research upon which to base such an important decision, I contacted the Butterfly Conservation Officer for the Coatham site which is referred to by the retained ecological advisors of TRDC as a valid example of a viable compensation scheme. He responded and agreed that I can include his comments in this letter to you:

‘The site at Coatham came about by happy chance as opposed to a deliberate attempt to create habitat for the species. The site is Forestry Commission owned and was created about fifteen years ago. I’m guessing that the sorrel was present anyway – it’s quite abundant in adjacent plantation rides – but maybe got a boost from ground preparation and it’s now really abundant within the created meadow. The moth found its own way there but may well have been present nearby.

As a side note, although this meadow creation has clearly been of benefit to Forester moth, there are a great many sites here in the north that appear suitable but which are unoccupied – clearly there are aspects of the species’ habitat requirements that are unknown – therefore

there's no certainty that mitigatory habitat creation will prove successful. It's also probable that although the meadow holds the bulk of the population, it is in fact part of a much larger area of occupied habitat that extends for 100s of metres into neighbouring plantations which could be functioning as a reservoir in poorer years (such as 2021, when the highest daily count we recorded as part of our monitoring was three; in good years 50-100 would be more normal).

Basically, the minimum area of high quality habitat (even if we knew how to precisely define that term) might be high if the species is to survive the wide annual fluctuations it seems to experience.

There's a lot about this moth which we don't know so protection of the threatened site in Hertfordshire would be a far more reliable way to ensure its presence is retained than to try to replicate work undertaken at Coatham which might prove less successful on different soils etc.'

*Dr. Dave Wainwright, Senior Conservation Manager Northern England, pers com,
21/09/2021*

- 3.14 Dr Wainwright's comments underline that the conceptual compensation scheme as proposed is not viable and is not appropriate. Planting the caterpillar food plant and associate wildflower species in one location is highly unlikely to be successful. Common Sorrel is already an extremely common plant in Hertfordshire. Sheep's Sorrel is very common in acidic areas of Hertfordshire. If Forester conservation were as simple as sowing a meadow with lots of Sorrel or Sheep's Sorrel in it, Forester would be a common and widespread species. It isn't.
- 3.15 In order to find out more about the example given of the population in Buckinghamshire I contacted the Bucks county moth recorder, who confirmed that that population in Buckinghamshire is associated with ancient hay meadows. He agreed that I can include his comments in this letter to you, as below:

'what is noticeable here in the Bucks/Oxon border area, where we still have quite a few small colonies, is that by far the majority are on ancient ridge-and-furrow meadows where the flora has remained undisturbed for centuries. I don't know what type of habitat the Maple Cross example was found in but I would have thought trying to recreate that kind of site as part of any mitigation for the species would be next to impossible.'

D. Wilton 03/08/2021 pers com.

- 3.16 As a side note it should also be noted that the presence of Forester moth supports the HMWT position that elements of priority habitat are present on the site. Forester needs these habitats to survive, as evidenced by its Bucks distribution.
- 3.17 The LPA cannot consider what has been put forward as a competent compensation scheme that, as HECOL suggest [CD 2.2.21],
- 3.18 *'would also ensure that TRDC has complied with its NERC Act obligations relating to its Biodiversity Duty and S41 species responsibilities'*
- 3.19 Both the county recorder for the neighbouring population and the recorder for the scheme they quote as providing a viable template, disagree with this judgement.
- 3.20 The application cannot be approved because no viable mitigation or compensation has been proposed. The local plan is clear on this matter:
- 3.21 The Three Rivers Local Plan [CD 4.25] states:
- DM6: Development should result in no net loss of biodiversity value across the District as a whole.*
- a) Development that would affect a Site of Special Scientific Interest, Local Nature Reserve, Local Wildlife Site or protected species under UK or European law, or identified as being in need of conservation by the UK Biodiversity Action Plan or the Hertfordshire Biodiversity Action Plan, will not be permitted where there is an adverse impact on the ecological, geological or biodiversity interests of the site, unless it can be demonstrated that:*
- i) The need for the development would outweigh the need to safeguard the biodiversity of the site, and where alternative wildlife habitat provision can be made in order to maintain local biodiversity; and*
- ii) Adverse effects can be satisfactorily minimised through mitigation and compensation measures to maintain the level of biodiversity in the area.*
- 3.22 NPPF is also clear that the application must be refused:

180. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- 3.23 The local extinction of a Section 41 priority species is a significant harm and therefore planning permission should be refused.

4. Biodiversity net gain

4.1 To assist the assessment of biodiversity net gain, HECOL performed a Natural England biodiversity metric of the site [CD 2.2.10]. I agree with HECOL that a biodiversity net gain metric is required to determine whether the development achieves a measurable net gain, as required by NPPF.

4.2 However, the biodiversity metric score put forward by HECOL is demonstrably not correct. They have mis-populated much of the grassland habitat as 'modified grassland'. This significantly affects the baseline value of the grassland. The UK Habitats Classification systems definition of modified grassland [CD 7.2.3] is:

4.3 *G4 Modified grassland*

Definition: Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of Rye-grass and White Clover.

4.4 This is an agricultural mix in origin not a semi-natural one. Modified grassland is not what has been described in their site description. What is described in their site description is a False Oat-grass (*Arrhenatherum elatius*) dominated sward. The majority of the site is described by HECOL [CD 2.2.6] as:

Overall, a general abundance of 2.10 Arrhenatherum elatius gives the impression of rough rather species-poor grassland. In several areas – particularly to the north and west, Arrhenatherum does indeed become largely dominant giving rise to rank, species-poor communities

4.5 This community is consistent with the UK Habitats definition for:

Other neutral grassland, sub category c5 [CD 7.2.3].

G3c5 Arrhenatherum neutral grassland

Definition: Neutral grassland with False Oat-grass dominant

4.6 Indeed, when they describe the modified grassland in the comments section of the metric they state:

Generally not a close fit to UK Habs definition of modified grassland in terms of characteristic species, not being dominated by agricultural grasses species and with white clover being rare....

Potentially could also be defined as g3 c5 Arrhenatherum neutral grassland, which falls into Other Neutral Grassland.

- 4.7 This is significant because other neutral grassland is worth twice as much as modified grassland in the terms of the metric. When the metric is adjusted to reflect this the baseline increases to 24.18 habitat units.
- 4.8 It should also be noted that the criteria that are required to determine the condition of the grassland when completing the biodiversity metric have not been directly referred to. In determining the condition of any given habitat, the condition assessment sheets which accompany the metric must be referenced to justify the condition selected. This has not been done for any habitat, so both the grassland condition and the grassland habitat selected cannot be considered legitimate.
- 4.9 In the comments section of the metric for line 1 and an area of other neutral grassland HECOL state:
- 4.10 *Other Neutral Grassland was chosen as a medium value distinctiveness, to reflect the mix of small areas of lowland acid grassland (g1a) with characteristic species and the areas with a species mix more characteristic of lowland meadow (G3a) and a LWS.*
- 4.11 Lowland meadow is a priority habitat and should be recorded as such in the metric and properly accounted for. This further elevates the habitat unit score.
- 4.12 This is wrong on many levels. If lowland meadow is present, it must be recorded and included in the metric. HECOL have stated that this habitat is present yet not recorded it.
- 4.13 The acceptability of the metric is further compromised by the areas for each of the grassland types that have been selected. We are asked to believe in lines 1 to 3 of the metric that 0.63 ha of modified grassland, 0.63 ha of other neutral grassland and 0.63 ha of modified grassland are present. This is not accurate mapping of habitats. This is dividing the total area into 3. How can this be used as the basis for an accurate assessment of net gain? Particularly with the implications in unit score that it brings.
- 4.14 This metric is demonstrably not correctly populated and should not be used as a measure for the biodiversity loss of this site in habitat terms.

5. Offset payment to achieve biodiversity net gain

- 5.1 Ignoring all that is wrong with the metric as documented above, I have attempted to adjust it on the information provided to a more reasonable score, to demonstrate how flawed the negotiated offset sum is, and how it will not be enough to deliver net gain.
- 5.2 The metric v2 does not allow for the destruction of priority habitat without bespoke compensation, but as a guide for the purpose of this discussion, if it is allocated good quality 'other neutral grassland' (the closest habitat to it) so that a figure can be generated, the overall unit baseline score comes to 26.70. To achieve a net gain i.e. an increase in habitat units of 10% in accordance with the Environment Act, a score of 29.37 is required. When the 10.54 onsite habitat units are removed from the figure, an offset of 18.83 habitat units is required.
- 5.3 HECOL have stated [CD 2.2.21] that the £142,800 figure that has been agreed between the LPA and the applicant is based on costing the creation and 25 year management of 11.9 habitat units at £12,000 per unit. This is based on a generic habitat unit figure. It has no data behind it other than reflecting a govt estimate of what an average unit cost 'might' be to support the original Environment Bill consultation on biodiversity net gain in 2018.
- 5.4 As well as being the incorrect habitat unit score, the figure is not informed by any cost estimates specific to the habitats proposed to be created and managed as a requirement of NPPF. Different habitats have very different creation and management costs. For example, creation and management of scrub is much less expensive than lowland meadow creation. One involves low intensity whip planting with periodic coppicing, and the other involves spraying, ploughing, reseeding with a bespoke wildflower mix and biannual cutting, clearing and disposal of cuttings. The cost of creating and managing lowland meadow is a vastly different unit cost than scrub and amongst the most expensive to create and manage.
- 5.5 The habitat that will be required to achieve an acceptable offset is good condition lowland meadow, because you have to trade up in habitat quality when compensating for habitat loss in accordance with the metric guidance. HMWT have created the Hertfordshire Biodiversity Offsetting Cost Calculator as an offset price guide, based on the Warwickshire County Council cost calculator, as adjusted for Hertfordshire. The Warwickshire calculator has been used since 2012 and can be considered to be a robust mechanism, tried and tested in the planning process and accepted through planning precedent. The costs for Hertfordshire have been sourced from

contractors, suppliers and council parks departments. It offers a worst-case scenario cost for LPA delivery of offsets based on contractor costs.

- 5.6 In accordance with the Natural England Biodiversity Metric, a minimum of 0.22ha is required to create 1 habitat unit of lowland meadow from modified grassland (spray off and reseed). This means a minimum of 4.14 ha are required to achieve the 18.82 habitat units generated by the adjusted but still unsatisfactory metric.
- 5.7 When these parameters are entered into the Hertfordshire biodiversity offset cost calculator, the total offset cost is £425,098.00 (see below).

Habitat units required	Primary habitat required in offset	Hectares of habitat required	Provider Agreement Set-up costs	Average Meadow creation cost per ha	Meadow maintenance cost per ha for 30 years	30 yrs Maintenance Cost plus inflation at 3.61%	Estimated cost of offset	Insurance Contribution (index linked)	Management Cost (index linked)	Total cost of offset
			£7,000	£2,560	£36,000			10%	20%	
18.83	Lowland Meadow	4.14	£7,000	£10,598	£149,040	£261,154.15	£278,752.55	£48,781.70	£97,563.39	£425,098.00

- 5.8 This calculation provides a legitimate potential cost breakdown to create the required number of lowland meadow habitat units to achieve a net gain, based on the corrected but still disputed HECOL biodiversity metric deficit. This cost is based on a conservatively adjusted inaccurate BNG calculation so is still only indicative. But the point is that an offset payment must be bespoke and costed, rather than based on average figures. In this regard HMWT is sympathetic to the applicant's request for a written costed scheme in the email of the 8/10/2021.
- 5.9 None of these costs were taken into account by HECOL when estimating the offset cost to be £142,800. Yet the LPA are being advised to accept this sum to deliver a measurable biodiversity net gain, based on inaccurate average unit costs. It will not be enough to deliver a real, measurable biodiversity net gain
- 5.10 It is inexplicable and utterly unacceptable that a legitimate attempt to cost the offset has not been applied, as I have done above. The figure of £142,800 is 'finger in the air' biodiversity offsetting at best and has no validity. The metric score is inaccurate, the unit cost is inaccurate, therefore the overall sum is inaccurate and cannot deliver a measurable net gain.

6. Conclusion

- 6.1 This development will result in the local extinction of the Forester moth, a species of principle importance and NERC section 41 species. No mitigation or compensation scheme has been offered to offset this. Local and national experts on the species attest to the difficulty of designing such a scheme. Yet it has been assumed that all will be ok when a scheme comes forward at some point in the future. This assumption is not based on evidence and not consistent with NPPF or the local plan. The application should be refused on this basis.
- 6.2 The biodiversity offset metric has by the evidence of HECOL, who populated it, not been populated correctly. When it is corrected, a much higher score is generated.
- 6.3 The incorrect net loss figure has been used to generate a potential offset cost payment for the LPA to deliver biodiversity net gain on behalf of the applicant. The figure used to calculate the unit costs are generic and incorrect for the habitat that it is required to create. Therefore, we have an under estimated number of units required to achieve a net gain and an underestimated unit cost for those units. By either measure a net gain will not be achieved. The application is therefore not consistent with NPPF or the local plan in a measurable way and on this basis should be refused.

Appendix:

HECOL biodiversity metric v2

Hertfordshire biodiversity cost calculator populated for application