

# HERTFORDSHIRE ECOLOGY

Providing ecological advice to Hertfordshire's Local Authorities and communities

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Ask for: Martin Hicks  
Tel: 01992 588483  
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Dear Claire

**Application.** Comprehensive redevelopment to provide 2 no. warehouse Class E(giii)/B2/B8 units comprising a total of 16,115 sqm including 1,882 sqm ancillary E(gi) office space, access, landscaping and associated works

**Address:** Development Site Maple Lodge Maple Lodge Close

**Reference** 21/0573/FUL

1. Further to our previous comments on the above, we have received a proposal from Greengage regarding the potential for additional compensation in respect of the Forester moth. An ecological review for such an approach was provided although we have also considered this in respect of the merits of this approach ecologically and in planning terms. We have also taken the opportunity to review the approach to BNG at this site in the context of the moth and the previous advice provided. This is discussed below.

## 2. Biodiversity Net Gain considerations at Maple Lodge.

### 2.1 Background to Biodiversity Net Gain (BNG) calculation, July 2019

BNG was originally considered at Maple Cross on the basis of compensating and enhancing for what was considered to be a low value, relatively species-poor grassland, most of which will be lost to development. The site was a long-standing site allocation for which no new information had been provided until the application. At that time, time BNG remained an objective of Government Policy but was not – and currently is not - a legal planning requirement. Govt's Biodiversity Metric V2 (Natural England July 2019 [DEFRA V1 2012]), The Environment Bill (Oct 2019) or the Queen's Speech (19<sup>th</sup> Dec 2019) had not been published, all of which confirmed the Govt's expectations regarding BNG.

However, BNG had been promoted in Local Plans and planning applications where it was considered appropriate. At Maple Lodge compensation and enhancement offsite was potentially achievable on a Local Wildlife Site known

to be adjacent to the development site. This had originally been identified on the basis of its neutral and marshy grassland interest, but since degraded following cessation in horse grazing. The site was now heavily invaded by scrub which was developing into woodland. To achieve a level of BNG locally, the aim would have been to restore this original habitat, thereby conserving a locally valuable flood-plain grassland adjacent to the river Colne. The basis for determining what contribution might be needed to achieve this is outlined as follows:

## **2.2 Cost calculation basis**

1. Management costs for the grassland were sourced from the higher level stewardship Handbook, Fourth Edition, January 2013:

### ***Species-rich, semi-natural grassland***

HK6 Maintenance of species-rich, semi-natural grassland £200 ha

HK7 Restoration of species-rich, semi-natural grassland £200 ha

For the site specified we assumed it would involve an initial restoration of the grassland followed by its continued maintenance

2. The £200 cost was increased to £215 / hectare to account for inflation in costs since 2013.
3. Using this rate, the cost over 25 years was calculated including a modest annual 1% increase to account for inflation.
4. In addition, a one-off cost to cover habitat creation as taken from the Coventry, Solihull and Warwickshire Pilot Offsetting (CSWAPO) cost metric 2014, this was increased to £1612/ hectare to account for inflation (It is not known how this figure was originally derived).
5. At the time it was recommended this should be applied to an area of 2.26 hectares, two thirds of the size of that being lost at Maple Lodge + 10% to represent a net gain of that resource.
6. The total cost amounted to £17,725, although this may have underestimated the cost of scrub clearance if undertaken in one operation.

This approach did not follow any form of Biodiversity Metric, which calculates the existing habitat on site in terms of Biodiversity Units, as well as the impact and compensation and enhancement measures. The previous Herts Ecology approach would have identified a lower monetary value than an approach using the metric with its defined habitat unit costs, particularly given it focused only on the conservation measures considered to benefit an existing local site. However, at the time it was considered that if they could be secured, the potential benefits generated from restoring an otherwise degraded but formerly valuable Local Wildlife Site would compensate locally for the loss of a poor grassland site which did not sufficiently justify LWS status. This was considered to be reasonable and proportionate planning advice at the time given what was known of the nature of the existing site, in pursuance of a BNG approach which was, and is not yet, mandatory.

## **2.3 Appeal, June 2020.**

Following the refusal of the original 2019 application, an appeal by way of a Hearing was held in June 2020. At the appeal new photographic evidence was submitted which appeared to show higher quality grassland was present on the site than previously considered. This was viewed by HMWT as the grassland meeting Priority Habitat status, based upon species identified in the photographs.

Furthermore, in the interim period between the HE response to the original application and the appeal, as outlined above, the Government published its updated metric and the Environment Bill, giving greater weight to the need for developments to demonstrate a measured BNG of at least 10%. To acknowledge this, at the appeal, Hertfordshire Ecology stated that if a similar application was now made, we would advise it was reasonable for the local authority to expect that a 10% net gain be calculated using the NE metric V2.

This was also reflected the Inspector's views that *the benefits arising from the proposal are not [currently] measurable and that it may be beneficial to use a metric such as that produced by DEFRA [NE]. However, the use of a metric is not mandatory.* However, the Inspector did not request a metric should be applied to enable further consideration of BNG, and the appeal was dismissed on other grounds.

Since the Appeal Inquiry, in July 2021 NE published V3 of the metric, adding further weight to the expected use of a metric to inform BNG.

## **2.4 New Application, 2021**

Consequently, when a new but similar application was submitted in 2021, Hertfordshire Ecology undertook a site survey to update its own understanding of the site given the local concerns and assessed the proposals using V2 of the NE Metric, to determine what contributions such an approach may generate.

## **2.5 Method used for the NE V2 Metric Calculation**

1. Following the site survey by HE in June 2021, habitats were classified according to the UK habitats descriptions as used within the metric.
2. The classification into UK habitat types requires a degree of interpretation regarding the weight given to the descriptive elements and the measurable elements for each habitat definition. Hertfordshire Ecology used a cautionary approach where there was ambiguity and ascribed habitats to the type with lowest unit value score in the metric.
3. The site visit had demonstrated that the grassland was largely characterised by areas of relatively species-poor grassland but included smaller areas with greater species interest scattered within the site. However, the grassland was not considered to meet Priority Habitat status as identified under the UK Habitats Classification due to the overall species-richness and composition.
4. In order to reflect this variation, the approximate size of these different grassland habitats areas was entered into the metric accordingly as *modified grassland* (which includes species-poor neutral grassland) and *other neutral grassland* (which includes species-rich neutral grassland). It was not

considered that the grassland met priority habitat status given the relative species-richness and overall character of the site.

5. The landscape plan that formed part of the application was used to estimate the areas of retained, enhanced and new habitat resulting from the existing proposal.
6. Based on the above:
  - The existing site scores 20.40 Biodiversity Units (BU)
  - The BU lost due to development = 16.98 BU
  - Retained onsite BU = 3.42
  - The proposed landscape plan shows BU gained on site = 7.12 BU
  - This leaves an on-site score of 10.54 BU.
  - This results in a net loss of 9.86 BU, or a net loss of 48.35%.
7. A 10% biodiversity net gain was based upon a requirement to deliver 22.44 BU. This leaves a requirement to find 11.9 BU offsite.
8. A rate of £12000 / biodiversity unit was used to calculate cost. This is a mid-way value between the £10k-£15k figure used in the government Net gain Consultation December 2018, a range accepted by Govt in their response, until or unless it was revised.
9. The resulting total contribution based on Herts Ecology's use of the NE V2 metric is £142,800.

This is a substantially greater sum than originally proposed. This is because the original BNG assessment did not apply the metric or its assumptions regarding habitat quality, the identification of BU or specific BU costs. The LPA would now need to consider whether or how it addresses this issue in determining the BNG requirements using a biodiversity metric, and the weight it should attach to this approach given the comments made by the Inspector in the appeal decision.

### **3. Forester moth.**

#### **3.1 Conservation status**

The ecological interest present on the site was recently further informed by the recording of the Forester moth in July 2021. This is a rare moth, a UK BAP species and S41 Priority Species. Due to a marked decline 1980 – 2005 considered to be due to agricultural intensification, it was added to the UK BAP list – originally created 1995-99 - in 2007 (JNCC). However, no action plan was produced for this or any other species added in 2007, and no such plan was ever proposed given changes to the BAP process at the time, which eventually ceased to be actively supported by Government nationally and locally.

The Forester has never been common in Hertfordshire and given the last record was 1947, was considered extinct in the county (Ref. Herts Moth Group 2021). However, it was recorded on 12 July 2021 at Maple Lodge and on 16 and 19 July at Chorleywood Common, also in the SW of the county (HMG 2021). In Middx it was recorded at Bushey Park (west London) on 20 June 2020 and

Trent Park (north London) on 16 July 2021, so perhaps it is beginning to re-establish itself.

### **3.2 Ecological requirements**

Habitats associated with it as described in its own BAP review were lowland calcareous grassland and lowland meadows.

The moth's larval foodplants are Common Sorrel (*Rumex acetosa*) and Sheep's Sorrel (*Rumex acetosella*). The former is not a rare plant in Hertfordshire whilst the latter is more restricted to semi-natural acid grasslands. The newly emerged larva feed within the upper and underside surface of the leaves mining distinctive 'leaf tunnels' as they feed. Later by mid-summer, they begin to feed externally on the lower leaves of the larval foodplant until the following May. The larvae pupate in a cocoon near the ground amongst grassland vegetation. Adults feed on a range of nectar producing flowers available at any one time, including vetches, clovers, black knapweed etc.

### **3.3 Conservation potential**

Conservation work nationally has been variously successful; it was lost from Warwickshire despite measures taken to conserve it, but the Forestry Commission (08/07/2011) reported over 1,200 adults following creation of a 2.5 ha wildflower meadow grassland from former agricultural land at Long Newton near Middlesbrough. The Upper Thames moth group reports (2019) Bucks sites with over 40 individuals, 16 individuals on a previously known site and 19 on a new site. These sites were on old ridge and furrow meadows on the clay and records more than doubled previous sighting numbers.

This suggests that the species is potentially capable of having better years and may indicate why it has been recorded at Maple Cross and Chorleywood Common in 2021. Whilst the Bucks sightings were associated with old well-established grasslands, the FC experience also suggests that new habitat can be created which is capable of being colonised by the species. This suggests that appropriate compensation measures may be successful in providing new suitable habitat resources.

### **3.4 Legal requirements**

As a S41 NERC Act species "of principal importance for the purpose of conserving biodiversity" covered under section 41 (England) of the NERC Act (2006) it therefore needs to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.

Consequently, in considering an application on land supporting the moth, TRDC must seek to secure its conservation. The possibility that the site has been used for breeding by the Forester cannot be ruled out given the presence of its foodplant and current rather rank nature of the sward. However, more sightings over a longer period would have strengthened this view. Nevertheless, it would seem that there are examples which demonstrate that habitat compensation could work if a suitable grassland species composition and management regime could be secured elsewhere locally. This could overcome the constraint the species may otherwise represent if it could not be retained on-site, which is

unlikely if the proposals were approved. It would also ensure that TRDC has complied with its NERC Act obligations relating to its Biodiversity Duty and S41 species responsibilities.

For this to happen, a suitably sized species-rich grassland supporting common sorrel and sheep's sorrel if the ground is acidic, as well as other flowering herbs, would need to be created locally. Hay cutting and or grazing should seek to retain a short length of grass sufficient to enable overwintering of the caterpillar or pupa. Given the moth is currently recorded on a grassland of just over 2 ha, a grassland of similar size and improved composition would seem be appropriate to accommodate sufficient habitat, larval foodplants and nectar sources.

### **3.4 Conservation proposals by Greengage and financial contribution to compensate for the Forester moth**

Greengage proposed (20/08/2021) a potential conservation approach specifically to consider the Forester moth. This is presented with further background information on the ecology of the moth and proposed mitigation and management. Without appropriate management of the existing site, the habitat conditions needed by the moth are unlikely to be maintained. This supported the original BNG proposal which it was proposed would provide a level of suitable compensation habitat for the moth.

Since this letter to TRDC, and following further discussions, Greengage proposed (26/08/2021) an additional contribution based upon the original HE July 2019 BNG calculation approach outlined above, which was provided to Greengage. This calculation is based on the area of the Maple Cross site that is currently grass cover and what an additional s106 contribution could be, looking at this being applied independently to enable compensation for the Forester moth to be delivered.

Greengage stated the application site is 3.4ha, of which approximately 2ha is grass cover. If the stewardship costings that were used for the previous contribution figure of £17,725 (for 2.26ha) are applied for this area, the additional s106 contribution would amount to £16,685, resulting in a total contribution of £34,410. Greengage consider that this follows a methodology that is appropriate for a contribution to the creation and management over a 25-year period of a species rich grassland that would provide the suitable habitat conditions for the Forester moth.

Herts Ecology have no reason to object to this assumption in itself, which follows the original habitat restoration and enhancement approach and is designed to address the species interest recorded at the site. It would obviously provide more habitat compensation and thus more opportunity for the Forester to colonise a potentially suitable offsite grassland site, and in this respect is welcomed.

Whether this sum total should now be considered reasonable or sufficient given the disparity with metric costings, is another matter.

#### 4. Review of financial contributions.

The issue of delivering BNG on this site is not disputed; the need to consider the Forester moth is also not questioned – and is in fact an obligation of the LPA. However, BNG continues to emerge and over the timescale of the applications has been further endorsed by Govt guidance and intention. This has also changed the weight that could be given to delivering BNG and how, to the extent that use of the metric would now be needed to demonstrate that measurable net gain can be achieved. This, in turn, has implications concerning the financial contributions that would be sufficient to achieve this.

Consequently, there would seem to be a number of options:

1. Maintain the existing original contribution, as originally calculated to create a suitable area of compensation grassland which could also be potentially suitable for the Forester. This would be £17,725
2. To ensure that BNG and the Forester are properly considered independently using the previous approach (technically BNG doesn't directly assess species conservation requirements), increase the contribution along the same lines for an additional area for grassland. This would essentially double the area of compensation grassland. This would be £34,410
3. Apply the NEV2 metric calculation to determine BNG requirements. This is based upon new evidence of grassland value confirmed by HE survey and the increased emphasis placed upon using the metric to determine BNG, despite the current lack of planning requirement. This should, by default, provide for a larger grassland compensation, which should also substantially benefit the moth's colonising and establishment potential. This would be £142,800.
4. A compromise between any one of these. Such a figure cannot be directly justified as it simply reflects the weight attached to a planning judgement which takes into consideration the different contributions currently assessed through different methodologies. However, whilst each of these could be justified on their own merits, the latest approach to BNG by using a metric would be more consistent with the current expectation of Govt should BNG be applied to this new proposal.
5. To reflect the changing circumstances, it is suggested a compromise between 2 (the agreed proposed figure) and 3 (the metric V2 figure) may be appropriate. This would amount to £54,195.

I trust these comments are of assistance,

Yours sincerely

Martin Hicks  
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