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Ms Laura Bailey
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By email only

9th November 2011

Dear Ms Bailey,

Re: 11/01494/OUT

**Outline – Redevelopment of former MOD sites – Site C Ploughley Road & Site D & E
Ambrosden Road MOD Bicester Upper Arcott Oxfordshire**

Thank you for consulting the Berks, Bucks & Oxon Wildlife Trust (BBOWT) on the above application. Having reviewed the information supplied in the Environmental Statement (ES) submitted in support of the proposed development, the Trust does not object in principle to the application. I generally have few concerns regarding the surveys undertaken, baseline data gathered and the conclusions of the ecological impact assessment given in the Biodiversity chapter, with the exception of the following particular comments.

Section 12.6 - Assessment Methodology

This section explains the methods used to identify ecological receptors that may be significantly affected by the proposed development. The Institute of Ecology and Environmental Management (IEEM) guidelines are referred to as the basis for the ecological impact assessment methodology, although the interpretation of these guidelines in the ES is a little unusual. Generally, potential features of ecological value ('receptors') are assessed from desk studies and gathered field survey data and assigned a level of value at a geographic scale, i.e. rising from value within the zone of influence only, through local/parish, district, county, national etc. Then an appropriate value threshold for consideration of significance is set based on the magnitude of the development and the severity of impacts likely to arise.

This process is not followed in the assessment, even though the IEEM definitions of the conservation status of sites and species based on a given geographical area is given. Rather, a decision has been made on whether the conservation status of identified potential ecological receptors would be compromised based on 'professional judgement drawing on the results of the assessment' and significant effects on a number of ecological features are dismissed through a 'high level scoping assessment'. Whilst all impact assessments are inherently not objective, I think that the lack of a geographic frame of reference makes this approach too arbitrary. Despite the

approach, and other than the comments made below, I think the decisions arrived at are generally acceptable, although the approach results in a brief concluding section to the assessment with no clear consideration of residual impacts.

Section 12.8 - Assessment of effects on Graven Hill Wood LWS (Graven Hill)

Whilst it is recognised in the ES that this Local Wildlife Site (LWS) is of county importance for its wildlife value, it is stated in error that the wood is currently managed by BBOWT and that the future baseline in the 'do nothing' scenario is that the LWS will continue to be managed by BBOWT and remain in a similar condition. This is not the case, and I can only assume that the confusion has arisen from the non-statutory designation. LWS are designated within the Oxfordshire by a consortium of Local Authority ecologists, BBOWT, Thames Valley Environmental Records Centre (TVERC) and Natural England. BBOWT and TVERC then periodically review and survey these designated County sites, and although BBOWT also provides habitat management advice when sought, management is generally the responsibility of the landowner. In this case, I assume any management that does currently occur in the wood is implemented by the MOD.

The ES identifies that when fully operational the proposed scheme would increase the immediate local population around the LWS by approximately 5000 people, and that that this would inevitably result in increased levels of disturbance to flora and fauna within the site. It is stated that adverse impacts arising from such disturbance would be managed by restricting access to a network of unsurfaced paths in the northern part of the woodland, and installing signage requesting that recreational users remain on these paths and keep dogs on leads to minimise disturbance to wildlife. Furthermore, it is proposed that no public access will be permitted to the southern half of the woodland which will remain a 'quiet area' for nature conservation (for example, the artificial badger setts proposed to replace those closed elsewhere on the site will be located here), and that green corridors will be created to increase connectivity of the isolated woodland to the wider landscape.

Whilst the LWS is a designated site of county importance for its biodiversity value, the site is essentially an isolated woodland with very poor connectivity to any other habitats of value in the wider landscape. Current pro-active habitat management appears to be very limited, and the greatest attribute the site currently has for local wildlife is its relatively undisturbed character due to the lack of public access in recent decades. I agree that some change in ecological value will inevitably result due to increased disturbance when it becomes accessible by up to 5000 new residents living in very close proximity, and this is likely to include eventual degradation of woodland ground flora and displacement of more sensitive bird species. I also think it is probable that the newly accessible woodland and the enhancements proposed will also become an attractive recreational space to some existing Bicester residents when the MOD site is decommissioned. However, I think that the measures proposed to mitigate the effects of human disturbance on the site such as instructions to remain on designated paths, keep dogs on leads, and also leaflet drops regarding pet cats and wildlife are unlikely to be very effective and will be very difficult to enforce. Furthermore, it is not stated how public access to the southern half of the wood could be restricted and enforced. Short of an impenetrable security fence bisecting the LWS (which would bring its own difficulties and impacts), it is not clear how this could be achieved or policed.

I approve of and support the retention of the entire LWS within the proposed scheme, and the plans to buffer it from the new development with a mosaic of additional woodland, scrub, pond and wildflower meadow habitats which would contribute to the conservation objectives of the nearby River Ray Conservation Target Area (CTA). However, I do not agree with the overall conclusion that the proposed incremental increases to the habitat resource of the LWS through such measures will result in a net gain to biodiversity, despite the admittedly subjective consideration of effects of future disturbance impacts. I also think that opportunities to achieve the stated aim of significantly increasing the connectivity of the woodland to habitats in the wider landscape and 'thus promoting species interchange across the landscape unit' are actually very limited. It is not acknowledged in the ES that the Graven Hill site is delineated on all sides except the east by either railway lines or a busy A road, which will act as significant barriers to the movement of some

wildlife such as reptiles, dormice and amphibians. Moreover, the landscape beyond Graven Hill is essentially intensive arable farmland with very few connecting hedgerows to other habitat features, and it is difficult to envisage what significant improvements the proposed scheme could make to reversing the effects of historical habitat fragmentation in the immediate local landscape.

Realistically, I think that some degradation of the ecological value of the LWS is inevitable given its presently undisturbed nature and the magnitude of the proposed development, and that attempts to improve habitat connectivity beyond the site will not have any significant beneficial effect. The applicant states that *'a habitat creation plan detailing the environmental measures to be incorporated within detailed design of the proposed development will be written by a suitably qualified ecologist at the reserved matters stage of the development. This will provide a detailed specification of the habitats to be created, together with a programme of works. It is likely that this will be implemented by the developer'*. It should be accepted that there will be some residual impacts on the LWS which are unlikely to be fully ameliorated by the proposed environmental mitigation measures. In order to at least minimise adverse residual impacts, it is of paramount importance that these habitat creation and management ideas are submitted in detail with explanation of a suitable delivery mechanism to ensure that they can be achieved. This should be appended to a S106 agreement for any permission granted.

The ES also states that *'Additionally an integrated recreation and habitat management plan covering Graven Hill Wood CWS and the newly created areas of habitat will also be written by a suitably qualified ecologist, and subsequently implemented. It is likely that an agreement with the BBOWT would be made whereby the Wildlife Trust are responsible for the long term management of the habitats and species on-site in perpetuity, albeit this will require funding. This will set out management practices designed to manage optimal areas of habitat for legally protected and priority species including badgers, roosting and foraging bats, dormouse, polecat, GCNs, reptiles, invertebrates and breeding birds.'* Again, such an on-going management plan should be written in sufficient detail to allow it to be accurately costed and appended to the S106 agreement so that any developer is clear of the requirements and commitment to biodiversity enhancement measures obliged within the scheme.

I would also make it clear that BBOWT has not been approached regarding taking on future management or ownership of the LWS. Moreover, the Trust would be disinclined to do so even with funding and a long-term lease in place, as the site is relatively small and isolated and would not be of any strategic ecological value to the objectives of the Trust's work. We would of course be happy to provide advice and input into management and monitoring prescriptions through participation in a biodiversity steering group for the proposed development. As a high level of public recreational use of the LWS is inevitable during the operational phase, serious consideration should be given to interpretive and educational material within the enhancement proposals to encourage local ownership of this designated wildlife site as a community nature reserve.

Section 12.14 – Assessment of effects on great crested newts (Graven Hill)

The surveys undertaken indicate that great crested newts are breeding in a number of water bodies distributed widely across the site, and an analysis is provided of the likely size of individual populations and associated metapopulations of the species within the site based on prescriptive guidelines provided by Natural England. Crude multipliers are used to extrapolate vague overall population numbers within the site of 513 – 7000 animals based on peak numbers recorded in each water body, which are then caveated as *'unreliable'* and *'not particularly useful in determining the population of GCN on-site for which mitigation measures and habitat enhancements are required'*. The majority of the terrestrial habitat is considered sub-optimal and the emergency water tanks in which most of the newts were recorded are then dismissed as very sub-optimal breeding habitat for the species. This assessment is then used as the basis to conclude that the actual numbers of newts present at Graven Hill will be considerably lower than the maximum estimate already acknowledged as extremely unreliable, which is thereafter used repeatedly as a worst case scenario throughout the remainder of the assessment.

I have no criticism of the survey methodology or the distribution data provided, but would interpret the results slightly differently. I agree that the emergency water tanks and much of the surrounding habitat are not what is generally considered optimal great crested newt aquatic and terrestrial habitat, but the survey results clearly indicate the population on the site is widespread and relatively robust, and the highest peak count of 122 animals in a single water tank is a significant survey result. Two of the largest populations of the species that I have personally surveyed in Oxfordshire have also been within existing and former MOD sites with very similar (sub-optimal) water tanks and very similar surrounding terrestrial habitat. The species clearly adapts very well to such sites even though they do not represent typical habitats. This is likely to be because once they have colonised such sites, populations are free for many decades from the effects that frequently lead to further declines in unrestricted areas such as unfavourable changes in agricultural land management, or direct habitat loss and incremental habitat changes due to encroaching residential development.

The distances that great crested newts will travel between breeding ponds given as a standard in the ES for determining distinct metapopulations at Graven Hill are essentially broad typical movements for the species provided in accepted standard guidelines. Whilst I acknowledge that these standards are routinely and widely referred to for interpretation of surveys and mitigation planning, it is understood that most animals in a population are more sedentary, whilst some travel further and colonise more distant areas. This being the case, and given that most of the outer perimeters of the Graven Hill site are either railway lines or major roads that are likely to be a constraint to the free movement of animals, I think it would be reasonable to consider the newts across the site as one metapopulation where there is occasional exchange of animals between different areas over time. I think this is an important distinction as the proposed development will result in the direct loss to land take of effectively all of the aquatic and most of the terrestrial habitat used by the species at Graven Hill.

Notwithstanding the above, the proposed strategy to mitigate impacts on the resident metapopulation by relocating animals to enhanced habitats and a network of new breeding ponds near to Graven Hill Wood LWS is the only possible option for development of the site as proposed. However, I believe it is important to recognise that such a strategy would be far beyond a 'routine' great crested newt exclusion and pond replacement exercise. The proposals would effectively relocate and entirely re-organise an established metapopulation of an internationally threatened protected species from a very large area. Whilst it may well be possible to successfully achieve this and maintain the favourable conservation status in the locality in the long term, the effort required and planning involved should not be underestimated. Of course, the statutory duty to comment on these proposals and apply the derogation tests of the Habitats Regulations 2010 within the European Protected Species licensing system falls to Natural England. However, in this case I would consider the existing newt population to be an important ecological resource of at least district wildlife value, as it is another notable example of the species apparently successfully exploiting a particular landscape niche that is specific to the district, and several similar sites are also under consideration for significant future land use changes.

Section 12.15 - Assessment of effects on reptiles (Graven Hill)

It is not particularly clear from the ES where the key areas of reptile distribution are within the Graven Hill site. Figure 7.1 Appendix J is referred to but it is difficult to tell what this figure is intended to portray, and it does not show where grass snakes and viviparous lizards were actually recorded and with what frequency. It would have been useful to have this information. It seems likely from the raw survey data that the population densities of both species present are not particularly high. However, only roofing felt was used as artificial refuge material, and this is less effective for attracting grass snakes than corrugated tin, and a mixture of the two would have been desirable over such a large site. In addition, the majority of surveys were undertaken during mid summer which is not the optimal time for surveying reptiles. It is notable that the four survey visits in April and early May were more productive, and it is likely that the overall numbers of animals that need to be relocated within the overall site may prove to be higher than expected.

It is proposed to exclude and trap reptiles from development areas and relocate them to enhanced habitats at the base of Graven Hill Wood. Whilst this is the only reasonable on-site option available, it is acknowledged in the ES that there is the potential risk that reptiles will be eradicated from the site when the development is operational due to increased disturbance and predation by domestic pets. I think that in the long term this is a real possibility. It is suggested that this might be prevented by a leaflet drop to educate new residents about the effects of pets on wildlife, but I do not think this is likely to be effective. The ES also states that if grass snakes and viviparous lizards are eventually extirpated from the site it would be unfortunate, but not significant, as both species are still common and widespread in Oxfordshire. Although distribution data are not clearly given, I would not agree with that assessment given that the result would be the loss of two legally protected and priority species from the entire site through predation and pressure on habitat suitability rather than by displacement of animals to other habitat beyond the site.

The applicant proposes to devise a suitable mitigation strategy in agreement with Natural England in advance of any works commencing. I would recommend that such a strategy is rigorous in its scope and assessment of potential future impacts on the relocated viviparous lizards and grass snakes. If it is still considered a real possibility that reptiles relocated within the development will fail to survive in the long term, then very serious consideration should be given to relocating the populations to a more suitable off-site location.

Delivery of proposed biodiversity enhancements

As stated above, the applicant intends to deliver the ecological mitigation and enhancement measures proposed in brief in the ES through a detailed habitat creation plan and a habitat management plan (for management in perpetuity) to be written at the reserved matters stage. Whilst I appreciate that the current application is for outline permission only, delivery of the mitigation/enhancement measures as a holistic strategy across the entire site is fundamental to (at the very least) avoiding a net loss of biodiversity from the scheme and thus maintaining compliance with PPS9, SE Plan policy NRM5 and appropriate protected species legislation. Should the site be sold with outline permission there would need to be a guarantee that the proposed measures would be delivered by future owners, particularly if the scheme were to be progressed in a number of disjunct phases by different developers.

For these reasons, I would recommend that a more detailed habitat creation plan should be submitted by the applicant prior to determination, along with a reasonably detailed outline for a future management plan. The latter should ideally contain information regarding on-going annual habitat management work plans, an appropriate ecological monitoring schedule, details of a biodiversity steering group and review process, and fairly accurate costings to achieve these aims. This document should be appended to a S106 legal agreement.

Compliance and planning conditions

Should the application be granted consent, BBOWT would support all of the biodiversity-related planning conditions proposed in Table 3.3 of Chapter 3 of the ES. In addition, I would recommend that the following documents are finalised and approved by the Council prior to commencement of any development work on the site:

- a Construction Environment Management Plan
- a Habitat Creation Plan
- a Habitat Management Plan

I hope that these comments are useful. Should you wish to discuss further any of the matters raised, please do not hesitate to contact me.

Yours sincerely,

Neil Clennell
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