

To Cherwell District Council,

I am writing to express my objections to the planning application for Wroxton motocross track. As a Biology research student at the University of Oxford, I wanted to expand on the ecological impact of the potential motocross track as I believe that the ecological appraisal commissioned for the applicant has missed several key points.

Firstly, I want to draw attention to the Balscote Quarry Nature reserve (around 880m from the proposed site). This reserve contains nesting populations of several UK red list species not mentioned in the report, including breeding populations of lapwing and curlew. The report's omission of these species, whose presence is mentioned on the easily accessible Banbury Ornithological Society website about the reserve, calls into question the integrity of the desk study.

Additionally, omitting curlew from the report fails to recognise the biological importance of this site. Curlew are an internationally threatened species on the IUCN red list, which are continuing to experience rapid declines globally. European population declines have been estimated to be up to 49% in the last 15 years. UK breeding populations, which account for 25% of the world population, have declined by 50% in the last 25 years. This is even more severe on a regional scale, with southern curlew populations in the UK lowlands (below an imagined line passing through Birmingham), now estimated at only 250-300 pairs. It is thought that without habitat protection and reduced human disturbance, curlews will be lost from southern Britain within 10 years. For these reasons, curlew are seen as the most pressing bird conservation priority in the UK.

Another top UK conservation priority species, the turtle dove, has also recently been recorded within 2km of the site. The turtle dove population in the UK has declined by 98% between 1970 and 2015. This decline is continuing at present, with a 51% population decline from 2013 to 2017. With less than 1000 breeding pairs left in the UK, it is seen as almost certain that the species will go extinct in the UK without intervention. This is particularly concerning, as the turtle dove is internationally vulnerable on the IUCN red list, with similar declines across much of Europe.

Parallel declines are seen in other farmland birds present within 2km of the site: since the 1960/70s, lapwings and starlings have declined by 80%, corn bunting by 87%, grey partridge by 91% and tree sparrows by 97%. The amber list swift, with a group nesting in Hornton church, has also not been included in the appraisal.

Important species of UK conservation concern within 2km of the proposed site are not just restricted to birds. The western barbastelle bat is an internationally threatened species, which is a UK Biodiversity Action Plan species and is vulnerable in the UK. This species is extinct or critically endangered in several western European countries, including Belgium, The Netherlands, northern France and Norway. Therefore, the UK population is a vital stronghold for the species and is important for recolonisation of these countries in the future. As one of the UK's rarest mammals, much remains to be learned about barbastelles – very few breeding sites are currently known in the UK. Of those that have been discovered, they are found in cracks of trees in areas of high humidity woodland, often close to water bodies. This fits the description of the deciduous woodland immediately adjacent

to the track, where “ground conditions are very wet due to the presence of several springs”. This is itself noted by the ecological appraisal – “suitable roosting and foraging habitat is present within the vicinity of the site most notably the mature trees within the woodland to the north of the site which have potential roost features in the form of holes and fissures”. It is therefore vital that this woodland is specifically surveyed for these bats, as recommended by the government and Bat Conservation Trust.

The area surrounding the site is also home to a thriving brown hare population, another UK biodiversity action plan species, which has declined by more than 80% over the last 100 years. Additionally, the ecological appraisal has failed to include the presence of hedgehogs within 2km of the site. Hedgehogs are also a priority species in the UK Biodiversity Action Plan, with numbers in rural areas falling by 50% since 2000. The nearby village of Hornton has itself been the subject of a hedgehog conservation project by the Warwickshire Hedgehog Rescue charity, with recovered hedgehogs released into the wild there in 2016. It is also important to note that the water bodies on the site may hold populations of water vole, with the presence of key food species fool’s watercress and brooklime indicating suitable habitat. Again, this is a key priority species for UK conservation, with water vole lost from 94% of their former area. I have personally sighted a water vole close to the village of Hornton (within 2km of the track) within the last 5 years.

Finally, the appraisal appears to entirely overlook the presence of protected plant species within 2km of the site. In particular, Balscote Quarry Nature Reserve has populations of several orchid species, including the pyramidal, common spotted and bee orchid. The appraisal calls this site a “semi-improved neutral grassland”. This is incorrect – this is an unimproved grassland which has a high natural value – more than 90% of unimproved lowland grasslands have been lost since the 1950s.

It is important to note that the applicant’s appraisal likely underestimates the number of protected species on this site. I have already noted several omissions of red and amber list species, which could have easily been identified as present during the desk survey from a simple google search. Indeed, the report even fails to include a red list species it recorded on the site (the woodcock) within its own table of red list species. Far from a comprehensive field survey assessment, of all the red list species recorded in the area, the appraisal noted a single sighting of a group of linnet. I find it hard to believe this would occur if the survey had been properly carried out – the surveyor didn’t even record a sighting of the relatively common and loud sparrow, despite recording a sighting of a woodcock (a famously elusive, nocturnal species) which seems rather surprising! The appraisal additionally fails to mention several local wildlife sites within the 2km area including Horley (Ragnell Bottom) 44B01, Hornton Meadows 34Y01 and the proposed site Hornton Hill Field 34N01.

It is also important to note that vegetation surveys were carried out in winter, when many grassland species are not present. English Nature (a precursor of Natural England), itself notes that “vegetation surveys may be misleading at times of the year (generally winter) when species indicative of semi-natural grasslands are less evident”. In these cases, English Nature recommends the implementation of the precautionary principle (contained within the Rio Declaration and the Convention on Biological Diversity), which states that development should be delayed until an accurate survey can be carried out, particularly

where “a judgement has to be reached in the middle of winter when the ecological interest may not be discernible” and “when there is some evidence to indicated that UK BAP species use a site but time is required to make a definitive assessment of this”.

In the case of the proposed development, this holds true for the grasslands mentioned, as well as the ponds which have been indicated as good habitat for great crested newts (GCN). The appraisal simply “recommends” further survey work to determine the presence/absence of the newts. In fact, this is a government requirement where there is a suitable water body (as identified by the proposal) – either eDNA sampling, population size surveys or terrestrial and aquatic habitat surveys. None of these have been completed. The ecological appraisal itself admits that its own habitat suitability index calculation is “no substitute for a dedicated survey”. The government website also states that developers should submit qualitative and quantitative information with their planning application on how their development avoids or mitigates harm to GCN. This has not been completed. Finally, the government states that planning application assessments must look at other GCN habitats within 500 metres because GCN are mobile and unlikely to stay in one place. Once again, this has not been done.

I write all of this because it is clear that this area is not just any old area of biodiversity-poor farmland. The area surrounding the proposed site is richly biodiverse, holding healthy remnant populations of farmland birds, mammals and plants which have experienced huge declines with the industrialisation of agriculture, which continues today. Many of these species are internationally threatened, indicating that this area has INTERNATIONAL CONSERVATION IMPORTANCE and must be protected from development. The natural value of the area surrounding the proposed motocross development is threatened in three key ways.

Firstly, noise pollution is known to have significant detrimental impacts on biodiversity, particularly in birds and mammals. Noise is strongly associated with declining bird densities (Reijnen *et al*, 1995) (Kuitunen, 1998) (Canaday, 2011) (Forman *et al*, 2002) (Bayne *et al*, 2008), severe reductions in diversity (Francis *et al*, 2009), reduced reproductive success (Warren *et al*, 2006) and loss of rare species (Warren *et al*, 2006) (Ware *et al*, 2015) up to 5km from the noise source. Infrastructure development must be minimised in relatively undisturbed areas for successful wildlife conservation (Benetiz-Lopez *et al*, 2010). The applicant’s ecological appraisal claims “that the infrequent use of the circuit throughout the year (average of 1-2 meetings per month), means noise disturbance the likely impact on breeding is likely to be negligible”. This contradicts directly with the planning application for 65 event days between March and September, which averages around 10 event days per month. Furthermore, this is an unclear, sweeping statement with no scientific backing – there is no evidence that occasional disturbances from loud noise have a reduced impact. I also wish to draw attention to the fact that noise disturbance will be focused during the main breeding season for birds and mammals, when populations are particularly vulnerable (Kight *et al*, 2012) (Habib *et al*, 2007).

Secondly, vehicle emissions are known to create areas of increased NO_x concentrations surrounding the source site. Deposition of this reactive nitrogen effectively “improves” (meaning nitrogen is added) nearby areas of vegetation (Redling *et al*, 2013). This is known

as a driver of significant declines in plant diversity and ecosystem complexity (Ridding *et al*, 2015) (Harpole *et al*, 2016), with cascading impacts on insect, bird and mammal species. This is a particular concern for the proposed district wildlife site Hornton Acid Pasture 34W01 close to the planned motocross site, which will almost certainly experience reactive nitrogen deposition and therefore species diversity loss from site traffic.

Finally, direct runoff from the site also threatens the ecosystems of the water course. This is admitted directly in the ecological appraisal, which stated that “surface water run-off was very apparent particularly at the north western site where soil erosion and run-off from the slope above the starting line of the circuit was evident” and also admits that “fine particles in suspension that are washed into the watercourse can carry nitrogen, phosphorous and chemicals causing environmental damage”. These effects may be particularly damaging due to the presence of a local wildlife site at Horley (Ragnell Bottom) 34Y01 immediately downstream from the proposed motocross track, which has been omitted from the ecological appraisal. Additionally, the impacts on the river system are specifically likely to damage populations of the internationally threatened barbastelle bat, which heavily relies on riparian ecosystems to feed, as well as potential water vole populations.

Clearly then, the proposed motocross track will have significant detrimental impacts on biodiversity in areas surrounding the site and will likely result in the loss of at least some of the red list/ internationally threatened species in the area. Aside from our own moral duty to conserve threatened species, biodiversity has a strong positive relationship with ecosystem services, the benefits that humans derive from natural ecosystems, from crop pollination and flooding prevention to mental health benefits (Mace *et al*, 2016). It is in our own interest to preserve these threatened species. This is particularly stark in the context of climate change: ecosystems with reduced diversity will have lower resilience, driving a spiral of decline (Mooney *et al*, 2009)

As a young person who cares about the natural environment, I ask that you seriously question the environmental impacts of the proposed planning application. The development of this site is not necessary: there are 4 motocross tracks within the local area, including Arnott Moto Parc in north Cherwell. If there is really a need for another motocross track, it should be sited elsewhere, where the implications for cultural and natural capital are reduced. At a time when we are beginning to realise the true value of nature and the importance of protecting the natural environment, it is clear that allowing the development of this track is wrong. These sentiments are echoed in Cherwell Council’s recent Community Nature Plan, where councillor Andrew McHugh said “We don’t own the environment. We hold it in trust for future generations. Whilst growth in our region is important, bringing prosperity and enabling people to live and work here, it is our statutory duty to make sure the natural environment is also protected and improved. But even if this was not the case, it is our moral responsibility to keep watch over our precious wild areas.” There is no better opportunity than this for Cherwell to show that this is not just meaningless rhetoric and that they are willing to take action on behalf of the environment.

We will be watching!

Yours sincerely,

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