

PROPOSED MEGA PRISON AT GRENDON UNDERWOOD

INFORMATION SHEET 4 ON ECOLOGY

Note: *The Bucks Council Ecology Team will be a consultee on the ecological aspects of the planning application and we do know that they were consulted in July 2020 at the pre-planning stage. We need to closely scrutinise the ecological surveys that have been carried out by the MoJ and will be included as part of any planning application. The details discussed at the pre-planning stage will also become public after a planning application has been posted on the Planning Portal.*

1. Objection Details

A few prompts included here as well as some phrases that could be used directly in objections.

- Highlight the wide diversity and numbers of wildlife (see lists below).
- Highlight the importance of wildlife to our communities and the enhanced impact that the coronavirus pandemic has had on the level of interest in, and appreciation of wildlife.
- Highlight the damage that the construction phase will do to the wildlife in terms of actual physical damage plus displacement due to noise and light and quote some details from the literature review (details below).
- Highlight the harm that the operation of the prison will do to wildlife both in the short and long term.
- Highlight the losses to local wildlife if mitigation plans are used to relocate some species, e.g. badgers, bats and newts.
- The potential harm to wildlife is also related to site selection. Why can't the MoJ use a site that would result in much less damage to wildlife than at the Grendon Underwood site? Have they fully investigated alternative sites?
- The MoJ have instructed contractors to carry out wildlife surveys and surveys on local ponds in the area have confirmed the presence of great crested newts across a wide range of ponds. Some of these were found in the ponds at Lawn House which is very close to the prison grounds.
- Locals have listed the different species of birds that frequent the area around the prison site, in particular on the boundary with Edgcott, the grounds of Lawn House and in the field lying between Grendon Hall and Grendon Road. The total number of species listed was 65 with 15 on the red list (highest conservation priority with species needing urgent action) and 13 on the amber list (next most critical group).
- The MoJ owns land around Grendon Hall and the two current prisons but this is all green field space. On one part of the site is an ecological area consisting of a large pond and a wooded area which lies adjacent to further woodland which is part of the grounds of another Grade II listed property, Lawn House. The ecological area has been built up over many years and a public footpath runs past this so that the local residents can enjoy the benefits of this work. The locality is rich in wildlife and includes 65 species of birds including 15 on the red list and 13 on the amber list. There are also great crested newts in the pond on the site as well as in 16 out of 21 surrounding ponds recently surveyed. In addition nine species of foraging bats were recorded including two rare species (Bechstein's and Barbastelle). The site is also located c. 0.9km North West of Grendon and Diddershall Wood SSSI and c.1.5km south west of Sheephouse Wood SSSI, which are known to support these bat species. Other species on or close to the site include badgers, roe deer, muntjac, lizards, snakes, foxes and rabbits.

- If the proposed new “mega prison” was built it would result in yet more habitat loss to large development projects in the area. In addition there would be a significant degree of urbanisation with resultant harm to the open countryside and the character and the setting of the current rural landscape. This is especially so due to the scale of the proposed development and the height of the main prisoner accommodation blocks (4 storeys high with some services on the roof tops).
- The development would involve a construction phase of 2-3 years, up to 1,000 contractors on site each day with associated traffic movements as well as the heavy goods vehicles that will be involved throughout the project. The only current access to the part of the site where the buildings would be located is directly adjacent to the prison ecology area, hence this area will be subject to regular traffic movements for up to three years. Once the building work is completed the proposed plan is to make the main entrance to the prison site run directly past the ecology area into the car park which will be located just beyond and adjacent to the ecology area. Hence there will be considerable traffic movements with associated noise through this area on a daily basis.
- Once in operation there will be around 500-600 directly employed staff working at the prison with approximately 250-300 additional non-directly employed personnel and in addition a regular flow of visitors. The significant increase in traffic related to this project, in this rural location, would have a detrimental impact on the local road system, already under pressure from the other projects. Apart from the impact on local residents, and along with the increase in light pollution, the development would undoubtedly have a major impact on the wildlife in the locality.
- In humans, noise pollution has been shown to cause a range of health problems from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues such as cardiovascular disease, cognitive impairment, tinnitus and hearing loss (Australian Academy of Science accessed May 2021). In many cases, humans can take some action to mitigate the effect of noise pollution. Wildlife, however, have fewer options and noise pollution affects animals in many quantifiable ways. Studies have demonstrated raised levels of stress hormones in birds and amphibians (Tennessen, Parks & Langkilde 2014; Tennessen, Parks & Langkilde 2016; Injaiana *et al.* 2019; Zollinger *et al.* 2019), increased avoidance behaviour and reduced species abundance (Summers, Cunnington & Fahrig 2011; McClure *et al.* 2013; Cooke *et al.* 2020a; Cooke *et al.* 2020b), even a shortening of DNA telomeres (the ‘cap’ at the end of DNA strands – that can impact longevity) in house sparrows and great tits (Meillere *et al.* 2015; Grunst *et al.* 2020). Morley et al (Morley, Jones & Radford 2014) summarised the situation succinctly: “Over the last decade, there has been a growing awareness of the potential impact of anthropogenic noise on non-human animals, with studies on a number of different taxonomic groups demonstrating effects ranging from behavioural and physiological adjustments of individuals to changes at the population and community level. Consequently, anthropogenic noise is now recognized as a major component of environmental change in the twenty-first century and a pollutant of international concern, featuring prominently on international directives and agendas (e.g. inclusion in the United States National Environment Policy Act and the European Commission Marine Strategy Framework Directive, and as a permanent item on the agenda of the International Maritime Organisation).”

- Other wildlife species noted and recorded by local residents include the following:
 - Bats (at least nine species), great crested newts, frogs, toads, badgers, deer, roe deer, muntjac, hedgehogs, snakes, hares, rabbits and foxes;
 - Multiple species of butterflies and moths including, scarlet tiger moths, hummingbird hawkmoth, painted lady butterfly, marbled white butterflies; Lesser stag beetles;
 - Part of the ecology surveys carried out by the MoJ contractor prior to the planning application found nine species of foraging bats including Bechstein and Barbastelle.
 - Various species of wildflower including Lady's smocks (Cuckoo flower – *Cardamine pratensis*), *Tragopogon pratensis* (Jack-go-to-bed-at-noon or goats beard) and Lesser and greater stitchwort;
 - A resident who works at Oxford University has carried out a literature review on the impact of light and noise on wildlife and has provided a referenced report (see the main conclusions below). This information is related to the impact that firstly the construction phase would have on wildlife. This is especially the case where the access road would be located into the main site to carry out the construction work, see Figure 1 below. The study is also relevant to when any new prison would be in operation due to the additional noise and light pollution that would take place.



Figure 1 Schematic of proposed plan showing road and access point to the main construction area and final site

The above figure highlights the following points:

- The access road to the main construction site will travel up the whole length of the field that is adjacent to Grendon Road.
- The main field that is on the other side of the boundary hedge belongs to Lawn House and towards the top end of that field is a large badger set. This set also crosses the boundary onto prison land and at this point will be in the direct path of the access road. To mitigate this situation it would appear that it is planned to close off parts of this set.
- The entrance from the field into the main part of the construction site will pass directly past the edge of the ecological area including the pond, and some of the buildings which form

part of HMP Springhill. This is a very narrow access point and is literally within yards of the wildlife area that has been established over many years.

- The proposed plan shows that the new site road will lead to a large car park just the other side of the ecology area and lie alongside and adjacent to the whole northern side of this area.
- As a result of the new site road, the saplings currently located in the area at the southern edge of the ecology area will need to be removed to create the required access space.
- To reach the main entrance to the proposed new mega prison, all contractors (up to 1,000 per day) during the construction phase would drive up the new site road and directly past the ecology area causing noise pollution and general disruption to wildlife in that region.
- In addition once in operation the staff (up to around 750 in total (figures vary in the OPA documents)) would also access the site via the new road and enter the car park by driving straight past the edge of the ecological area and then parking adjacent to this area.
- Although the main ecology area will be left in place, the noise, light pollution and general disturbance from the construction traffic, and in due course when the prison is operational, staff, visitor and delivery traffic will cause significant disruption to the wildlife and some of it may be permanently displaced from the site. No amount of mitigation could prevent for example, the displacement of birds, bats and some other wildlife.
- In the construction of the proposed new mega prison there will be a total estimated loss of 780m of hedging and trees that are located in the hedgerows.
- In total there will be a loss of at least 50 acres of green field space across the whole site if the new mega prison is built. This is a valuable source of habitat that will be irreversibly lost to wildlife and cannot be mitigated. In addition digging up this green field space will release approximately **6,678 tons** of carbon currently locked up in the fields.

The research review on the impact of noise and light on wildlife highlighted the following conclusion, By Dr Marianne Sinka, Dept. of Zoology, University of Oxford

CONCLUSIONS

I have detailed just a handful of the multitude of studies documenting the incontrovertible evidence that anthropogenic noise, and specifically road traffic noise, impacts the health and well-being of wildlife. The World Health Organisation describes noise as one of ‘the most hazardous forms of pollution’. Its impact is all the more pervasive when forced into rural locations. Along with the peer reviewed literature, my own brief recordings of traffic noise shows how bird song is masked and even suggests that the birds stop singing while traffic passes. It is therefore abundantly clear that an increase in traffic noise in this location and the development site will have a deleterious impact on the local wildlife.

I have also included a brief summary of how light pollution will affect the natural fauna found in our local environment. The UK government states: “Artificial light... can be a source of annoyance to people, harmful to wildlife and undermine enjoyment of the countryside or the night sky, especially in areas with intrinsically dark landscapes.”(UK Government Accessed June 29, 2021). Thus it is widely accepted that both light and noise pollution have clear detrimental impacts on wildlife. Moreover, the available evidence suggests that in combination, these impacts can be more than additive (Dominoni et al. 2020). Stone (2014) (Stone 2014) suggested: “...even a small amount of lighting may have a disproportionate impact on bats at sites where there are already high levels of disturbance.”

If the proposed mega prison goes ahead, it will, without doubt, negatively impact the local wildlife.

Animals will be physically displaced during the construction process. Green fields will become tarmacked surfaces, hedges removed and light and noise pollution will create an ongoing detrimental effect to their well-being.

This report has focused on the noise created by additional traffic; it has not examined the increase in air pollution that may also be generated by these additional vehicles, which will also be considerable during the building process (for example, most HGVs are diesel driven). Furthermore, increasing the need for car journeys by building such a structure so far from any transport hubs is contradictory to the

Government's commitment to a lower carbon future. Particularly so when, according to the Climate Change Committee 2020 progress report (Climate Change Committee Accessed June 2021), current efforts appear to be missing targets: "Progress is generally off-track in most sectors, with only four out of 21 of the indicators on track in 2019. This represents no change from the previous year where the same four of the 21 indicators were met."

Thus, in terms of noise, light and air pollution as well as carbon, human welfare (including those existing prisoners who would have to suffer the noise of construction), and impact on the character and setting of the landscape surrounding the proposed site, this site appears to be a particularly poor choice for development.

The full report can be found on the Edgcott and Grendon Underwood Parish Council websites and is entitled *Literature Review Examining the Effect of Traffic Noise and Light on Wildlife* by Dr Marianne Sinka, Dept. of Zoology, University of Oxford., May 2021.

2. Any Other Points

Include any other relevant information or sources that might help in making the objection, including photos to highlight the current wildlife situation and what might be lost.

Residents to include any personal stories and photos.