



Proposed Energy Centre  
Bilthorpe Business Park,  
Nottinghamshire

Response to comments on first Regulation 22  
submission by Nottinghamshire Wildlife Trust

Prepared for Peel Environmental Management  
(UK) Ltd. and Bilthorpe Waste Ltd

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## **1 Introduction**

A response is provided below to comments made on the first Regulation 22 submission by Nottinghamshire Wildlife Trust (NWT), in a letter of 16<sup>th</sup> August 2014.

The response is made by way of clarification of information already supplied, either as part of the Energy Centre Environmental Statement (ES) or associated technical appendices, or as part of the first Regulation 22 submission. In some cases the second Regulation 22 submission (submitted 22 August 2014) provides the necessary clarification.

NWT's points are addressed below in the order in which they appear, with headings taken from their letter.

## **2 NWT comments and response**

### **2.1 Cumulative effects on the LWS – waders**

#### Location of mitigation area

*"The Wader Mitigation Plan (WMP) recognises that the proposed mitigation area would be compromised by a range of features, including the wind turbines and the adjacent woodland where predators will perch. The report does not recognise that some of the mitigation area may also be compromised by the impacts of a building of this scale during both construction and operation. The scale of construction is such that it is likely to displace waders, who are sensitive to noise, some distance away from the proposed development footprint."*

The WMP recognises that the presence of wind turbines and woodland act as constraints on the mitigation area, but does not state that it would be 'compromised' by the presence of those features. Any effects of the wind farm are addressed by locating the mitigation area largely outside a 200m buffer around the nearest turbine, and effects of adjoining woodland are addressed by maintaining a buffer zone as low coppice.

The mitigation area was designed to provide near-site mitigation of the Energy Centre development; section 3.1 of the first version WMP notes that it is located at its nearest point over 100m from the Energy Centre boundary. At this distance the presence of the Energy Centre is very unlikely to impose any constraints on utilisation

of the mitigation area. The revised WMP (submitted as part of the second Regulation 22 submission) provides a more explicit assessment of any possible constraints imposed by the Energy Centre and other potential developments, concluding that it will not have any effect. This is supported by assessments of noise and lighting, including those within the ES, which include consideration of construction noise and potential effects on birds, and submitted as part of the first Regulation 22 submission. The boundary of the mitigation area is well outside the 55dBLAeq noise contour, as illustrated by Appendix 2.5 of the first Regulation 22 submission.

#### Impacts on lapwing

*“This development would directly impact a LWS on which little ringed plover (LRP) are known to breed, and which are one of the species of wader for which the LWS has been designated. The WMP recognises that the LRP would be displaced from breeding by this proposed development and that up to 5 pairs of lapwing currently breeding on the solar farm site would also be displaced from their foraging areas by the noise and disturbance that would be caused. This impact should be recognised as part of a series of overlapping impacts where mitigation for one development is being double-counted against mitigation for another already and which is forcing waders, particularly lapwing and LRP, to move around the LWS, only to be then displaced again.”.*

The point has been made in the ES, and again in the WMP, that little ringed plover are only present on the Energy Centre site because the land is temporarily suitable for them, being cleared of vegetation following coal recovery operations.

5 pairs of lapwings would **not** be displaced from the Solar Farm site by the ‘noise and disturbance’ of the Energy Centre; this is located well outside any zone of potential impact. They would be displaced by the Solar Farm rendering their habitat unsuitable. Far from ‘double-counting’ mitigation areas, the WMP proposes a new area which addresses not only the impacts of the Energy Centre, but additionally at least partially addresses the unmitigated displacement of lapwing from the currently consented Solar Farm.

*“1. The colliery tip was required under its mineral permission to be restored to acid grassland, wetlands, heathland and neutral species-rich grassland, due to the diverse nature of the available substrates. This does not appear to have been fully implemented and so the habitats and landscape that was promised to local people has not been delivered. Despite this, due to the scale of the site and the presence of*

*some good habitat, the tip has developed a wader assemblage of County importance."*

This appears to slightly over-state the importance of the wader assemblage. By definition, Bilsthorpe Colliery as a Local Wildlife Site is of County-level importance; this was acknowledged in Table 8.8 of the ES (which also noted the conflicted policy status of the LWS). However, it is our understanding that the LWS status is due to a combination of the wader assemblage and presence of dingy skipper butterfly; it is also uncertain whether this has been re-evaluated in accordance with DEFRA (2006) criteria. It is perhaps worth noting that the wader population of the Solar Farm site is in any event located outside of the LWS boundary. Our evaluation (ES paragraph 8.3.67) noted that the population of 5 pairs of lapwings is less than 0.1% of the regional population, and therefore of no more than local interest; the presence of 1 pair of little ringed plover is >1% of the County population in 2007 of 12 pairs (ES paragraph 8.3.61), but this was evaluated as being of District-level importance because of the ephemeral nature of the habitat present on site. Note that the mitigation area would represent an improvement on the current situation, insofar as habitat quality could be maintained in the long term.

*"2. Condition 4 in the permission for the construction of the NCC Highway Depot required mitigation for lost habitat for breeding LRP in the form of the creation of a new shallow wetland scrapes, shingle habitat and enhancement of the existing wetland to create shallow, scalloped edges. This was to be combined with the removal of some areas of immature woodland and coppicing of others. The LRP mitigation habitat was to be created on the south west quadrant of the Tip. Immediately south of the proposed ERF. This mitigation does not appear to have been implemented."*

NWT are correct to state that a scheme was put forward as part of the discharge of conditions for the Highway Depot, and was to be located to the south of the Depot and to the immediate west of the proposed solar farm development. There is no evidence from aerial mapping or site surveys to indicate that the approved scheme has been fully implemented; there is a small temporary pond visible around 275m south of the site on Google Earth, in the location intended for the scrape creation, although no shingle is visible. At 275m distance, located on an elevated part of the colliery site, this is **not** 'immediately south' of the Energy Centre.

*"3. The Stonish Hill wind farm development permission required the delivery of a substantial mitigation package for 2 pairs of LRP, 2 pairs of redshank and 17 pairs of*

*lapwing, comprising of off-site habitat management on neighbouring farms and grassland management on the Tip and assumed that some of the waders would use the remaining LWS where it was outside the impact zone of the turbines, thus pushing this significant population of waders onto the southern half of the Tip and also towards the proposed ERF site.”*

The original wind farm development was for 7 turbines and a mitigation scheme, including land on the solar farm site was put forward as part of a supplementary environmental information submission. The 7 turbine scheme was subsequently withdrawn and the applicants submitted a fresh application for a 5 turbine development, which was accompanied by an ES addendum document. This included a revised ecological mitigation scheme, which still included mitigation measures on the currently planned Solar Farm site. The 5 turbine scheme was refused planning consent and subsequently allowed at appeal. The planning conditions attached to the appeal decision (APP/B3030/A/08/2072487) do not require the implementation of the mitigation scheme, aside from measures to protect breeding birds during the construction process. As a consequence, whilst the mitigation was proposed through the planning application process, it does not appear to have been carried through by the appeal inspector, thus the mitigation works would not appear to be required, contrary to the statement made by NWT.

The bird survey data which informed the ES (and a similar survey to inform the Solar Farm application) were collected in 2013 when the turbines were being constructed, and would therefore have taken into account any displacement towards the Energy Centre site.

*“4. The solar array development had mitigation requirements to provide habitat for 5 pairs of displaced lapwing and other waders on the south west quadrant of the tip, on exactly the same location as the mitigation for the depot, and where it was also assumed that some of the wind farm birds would go. The development also involves the planting of a hedge around the entire periphery of the array, which would be detrimental to the success of breeding waders through predation of chicks by corvids.”*

This highlights the value of the Energy Centre mitigation, which proposes habitat enhancement in a new location to those proposed for the currently consented Solar Farm scheme and the existing Council Depot sites. As noted above, no mitigation was ultimately deemed necessary for the wind farm development. Ecological enhancement requirements for the Solar Farm were not required to be set out prior

to determination of the planning application, but were the subject of pre-commencement planning condition 06 of the planning consent (ref. 12/01594/FULM). This does not explicitly specify mitigation for lapwing or other waders.

Any deficiencies in the arrangements for currently consented developments increase rather than detract from the value of the Energy Centre mitigation, which was developed after careful and explicit consideration of cumulative impacts in the ES, including in particular those of the currently consented Solar Farm development.

It is understood that a revised Solar Farm application has recently been submitted (14/01283/FULM) for a reduced area of panels, with compensatory habitat creation proposed to the north of the site within an Ecological Management Plan (WSP, 2014). This does not target mitigation for lapwings, which are mentioned only as a species 'present or with the potential to be present'. The only habitat mitigation proposed for lapwing is an avoidance of grass cutting during the breeding season, and in fact it seems likely that the sward will be too long in spring to provide optimal nesting habitat for lapwing. In addition, the proposed ponds are to be created to provide great crested newt habitat (the nearest GCN record is reported as 300m south of the Solar Farm), not to act as wader scrapes. Despite this NWT were 'supportive' of the Ecological Management Plan in their consultation response letter of 6<sup>th</sup> August 2014, requesting only minor amendments, none of which related to displacement of breeding waders. This discrepancy in attitude is puzzling.

*"5. The proposed reworking of the coal fines would result in the loss of more habitat that is suitable for LRP, with birds potentially being displaced once again."*

The coal fines re-working proposal, like the revised Solar Farm application, was clearly outside the scope of the Energy Centre ES, as a development which had not been proposed or foreseen at the time of preparation. Any impact on little ringed plover of the coal fines proposal is a matter to be considered in the context of the planning application for that development. It should be noted, however, that the location of the coal fines proposal is well to the south-east of the proposed wader mitigation area, and will not have an impact on the potential success of the Energy Centre mitigation works.

*" Thus the previous permissions have predominantly pushed sensitive breeding waders to the west and south west quadrant of the Tip, where they would now be impacted*

*by the noise, disturbance, lights etc. of a large industrial ERF both during construction and operation.*

***Thus the ability of the mitigation requirements for the other developments to deliver could be compromised by this development.***” (NWT emphasis)

It is far from clear how points 1-5 lead to a conclusion that any displacement of waders to the west / south west quadrant of the Tip will lead to disturbance by the Energy Centre. As noted above, the mitigation area for the Council Depot is around 275m south of both the Energy Centre and Depot, and is also separated from it by a belt of trees on the slope to the south of these sites. Reference to the assessments of noise and lighting impacts in the ES and earlier Regulation 22 submissions demonstrate that any ecologically significant effects will be confined in a much more restricted area well north of the wader mitigation site.

The only mitigation currently required for waders is in relation to the Council Depot; the Solar Farm is not currently proposing wader-specific mitigation, and the wind farm was ultimately not required to do so. The only project compromising wader mitigation was the original extent of the Solar Farm, which included the Council Depot mitigation area. Far from compromising mitigation requirements for other developments, the Energy Centre helps to redress some of their deficiencies, and proposes the establishment of a new mitigation area well away from other proposals.

*“I note that the WMP has been carefully prepared to try to accommodate the LRP that would be displaced from the ERF site and it acknowledges that it may provide suitable breeding habitat for up to 2 pairs of lapwing which would be displaced by the solar farm. But this still leaves a likely detrimental impact on multiple pairs of lapwing displaced from the wind farm site and from the solar farm, which would be vulnerable over a large area to the noise and disturbance of an industrial development of the scale of an ERF. **NWT do not, therefore believe this mitigation to be sufficient.**”* (NWT emphasis).

As demonstrated above, and in the ES and Regulation 22 submission, ‘multiple’ pairs of lapwing will **not** be ‘vulnerable over a large area’ to disturbance associated with the Energy Centre. The likely extent of any disturbance has been carefully quantified, based on predicted noise and light levels.

*“ The effectiveness of the WMP would also be contingent on the mitigation habitats being in place and established before any development took place and on a very carefully managed and monitored grazing regime by a 3<sup>rd</sup> party tenant, with at least*

*annual ecological monitoring. There would be an ongoing requirement to coppice the adjacent plantations every 2-3 years and someone would need to check the number and type of livestock grazing the mitigation area every year. Given the lack of success in implementation, monitoring and enforcement of the other permissions in the area, **NWT have little confidence in this mitigation being successfully delivered and maintained, even if it were adequate in the first place, which it is not.*** (NWT emphasis)

The successful implementation or otherwise of other mitigation schemes has no bearing on the WMP, which has been formulated to be a practically workable scheme in consultation with the landowner and grazing tenant. The '3<sup>rd</sup> party tenant' is indeed an important part of the scheme, as would be the case for any mitigation scheme; far from being a weakness, the proposed integration with current farming practices (e.g. checking that there is actually an available cattle herd which can both graze the site when necessary and be removed from the field when necessary) is a strength of the scheme, increasing the chances of its success.

The on-going management and monitoring requirements are acknowledged in the WMP, and have been strengthened in the revised WMP at the request of the County Council ecologist. The adequacy of the scheme is addressed above.

## **2.2 Air quality impacts**

*"The Air Quality Assessment considers the potential for adverse effects arising from emissions. Of particular relevance for ecological receptors is the likelihood of emissions resulting in increase Nitrogen deposition on sensitive habitats, and also increased acidification of those habitats. When Nitrogen is added to a habitat it acts as a fertiliser, encouraging the more vigorous growth of some species over others, depending on the inherent chemistry of those different species which limits their response to Nitrogen. Nitrogen (N) deposition is considered to be one of the greatest threats to priority habitats throughout Europe.*

*The impacts of N deposition could have 2 different effects on habitats in the vicinity of this proposed development:*

*(a) Damage valuable SSSI and SAC habitats through favouring the growth of more invasive species that would out-compete the scarcer species and diverse assemblages for which the site has been designated.*



*Act as a fertiliser to increase growth of vegetation in areas currently used by nightjar or woodlark, making these areas less suitable more quickly than might otherwise be the case.*

*The assessment that has been undertaken in the Air Quality Report has identified that the Critical Load for Nitrogen has been exceeded already for most habitats in this area, ie. they are already likely to be sustaining damage from excess N deposition. But the report concludes that the additional emissions that would be generated by the ERF would not make a significant additional contribution to this effect, despite the fact that increased nitrogen deposition will inevitably affect habitats."*

The impact of nitrogen deposition on sensitive habitats is common ground with NWT, and the range of effects they describe are acknowledged within the ES and Regulation 22 submissions, and formed the basis for the assessment of air quality impacts.

What is **not** accepted is that small incremental emissions (and consequential deposition) from the Energy Centre will 'inevitably affect habitats'. As described in the ES, the AQA (ES Appendix 10-1), and in the Regulation 22 submissions, the assessment of significance followed Environment Agency guidelines. These explain that in cases where Critical Loads for nitrogen deposition are already significantly exceeded, a small process contribution from the Energy Centre is not necessarily significant, even if it is above 1% of the Critical Load. The second Regulation 22 submission (22 August 2014) explains this in more detail in relation to Environment Agency Horizontal Guidance, and in terms of likely ecological effects.

*" I note that the applicant has now submitted an amended AQ Report in response to my concerns about the incorrect Critical Level for Ammonia used previously, which did not reflect the important lichens and bryophytes in the SAC. The new report submitted for this Reg 22 has concluded that there would be no adverse effect on the sensitive habitats of the SAC as a result of this development, including the sensitive and important lichen and bryophyte communities, even though they are already under pressure from excessive N deposition. I note that the modelling is based on theoretically derived 5km grid data and that no actual recording of air quality in the SAC has been undertaken on which to base the predictive model. NWT are not in a position to commission air quality modelling, and so whilst we maintain reservations about the accuracy of the modelling, we have to defer to the emissions experts in NE on this matter."*

The primary evidence base for conclusions regarding impacts on Birklands and Bilhaugh SAC is the dispersion modelling carried out by Fichtner Consulting Engineers. It is unclear why NWT 'maintain reservations about the accuracy of the modelling', which is an industry-standard model approved by Environment Agency for AQA purposes of combustion plants. They appear to have confused the dispersion model with the modelling of background levels. As stated in Section 3.2 of the Regulation 22 technical appendix on the SAC, *'The dispersion model predicts a PC of 1.42ng/m<sup>3</sup> (0.00142µg/m<sup>3</sup>) to annual mean ammonia levels at the SAC, 0.142% of the critical level for sites with sensitive lichen communities of 1.0µg/m<sup>3</sup>.'* This does not require consideration of background levels to conclude 'no likely significant effect', as it is less than 1% of the critical level.

*" I previously raised concerns about the incorrect use of the CL for N deposition for Redgate Woods and Mansey Common SSSI, as it was based on the value for woodland habitat rather than the more sensitive grassland habitat. I can only find a reference to this SSSI in one table of the AQ addendum and there is no explanatory text to state whether this has now been reassessed. This concern is, therefore, still unresolved as the potential impacts on the grasslands of the Common, which also form part of the SSSI, have still not been elucidated. The grasslands have been extensively managed to protect, restore and conserve the botanical diversity. So clarification is still required on **whether the effects on Mansey Common SSSI have been properly assessed.**"* (NWT emphasis).

This has been addressed in full in the second Regulation 22 submission, which concludes no likely significant effect. The above text above also contains an erroneous assumption, in stating that grassland habitats (Critical Load for environmental assessment screening: 20kgN/ha/yr.) are more sensitive than woodland habitats (CLO for broadleaved woodland broad habitat: 10kg N/ha/yr.).

### **2.3 Creeping water-primrose; on-site mitigation scheme; bats**

It is noted that NWT are no longer maintaining an objection on these matters

### **2.4 Nightjar and woodlark**

*" Further to the concerns raised in my previous letter, I note that a woodlark survey has now been undertaken, in which one visit coincided with the most active period for woodlark. I do not agree with the consultant's assertion that woodlark breed only on sandy sites, as previously stated, we find them on some ex spoil tips in Notts and indeed pairs were found breeding on such sites in 2014. Given the negative survey*

*result, however, in 2014 for this site, I am satisfied that woodlark did not breed there in 2014."*

Agreement on this matter is noted. The ornithological consultant employed has a very good experience of woodlark surveys, and his assertion regarding habitat is based on that experience. Without looking in more detail at the characteristics of the ex-spoil tips which support woodlark, it is difficult to assess whether there is any substantive difference of opinion on habitat quality.

*" The consultants did not record nightjar in Cutts Wood in their single evening visit in late June 2014 and state that no suitable habitat was found. Despite poor weather, the Birklands Ringing Group found at least 2 nightjar there on the 15<sup>th</sup> August. There were 2 birds, which are suspected first brood young dispersing from the natal territory within the wood. Later a male churred briefly under the power line and then there were nightjar contact calling over the field near the copse, which may or may not have been the same birds. The consultants have now provided substantially more information on the predicted light, noise and emission impacts of this proposed development, and our concerns have been partially allayed, but the predictions are based on the assumption that nightjar are not in the southern end of the Wood. **But given the discrepancy with records and potential locations of nightjar in Cutts Wood, I suggest that the consultants meet with Birklands Ringing Group and NWT to resolve these discrepancies and to assess whether there would be any indirect effects on this EPS.**" (NWT emphasis)*

The predictions in the first Regulation 22 submission (July 2014) on nightjar are **not** dependent on nightjar not being present at the southern end of the wood. This is made clear in the detailed discussion of air quality, noise (including traffic noise on Eakring Road) and lighting impacts within this document. For this reason **it is not considered necessary to resolve these discrepancies**, as it has already been made clear that there will be no impact on any part of the woodland.

While we do not dispute the Ringing Group findings, it is notable that these result from a 15<sup>th</sup> August survey, previously considered by NWT to be too late in the season to be valid (ref. comments on July Argus Ecology survey). As acknowledged in the commentary above, these may represent dispersal from the natal territory, which may or may not be within the wood.

Finally, NWT refer to nightjar as an 'EPS', presumably European Protected Species; this usually refers to species protected under Annex IVa of the Habitats Directive, not

Annex I of the Birds Directive, reflecting the strict protection afforded to Annex IVa species. Annex I birds have more legislative equivalence to Annex II species in the Habitats Directive, requiring the designation of Natura 2000 network sites to maintain their favourable conservation status. As outlined in the first Regulation 22 submission, the protection status of Annex I species such as nightjar has now been better integrated into domestic legislation by the 2012 Amendment to the Habitats Regulations, but it remains slightly misleading to refer to them as 'EPS'.

## 2.5 General impacts

*" NWT note that this application still does not assess the likely effects of any future connection of this development to the grid. Such an operation would inevitably involve further habitat loss and disturbance and should properly be included within this application, not least where any effects may be cumulative"*

Chapter 16 of the ES describes two grid connection options in some detail, together with heat export proposals. As these options involve underground cabling or ducting within the highway, highway verge or existing cable routes for the wind farm, it is not true to state that the operations would 'inevitably involve further habitat loss and disturbance'.

## 2.6 Mitigation

*"The ES proposes that habitat with suitable food plants for dingy skipper could be included in the landscaping scheme, which is to be welcomed"*

Note that it is anticipated that details of this scheme, including measures to plant and maintain suitable food plants and associated physical conditions for dingy skipper, would be the subject of a pre-commencement planning condition.

*" As described above however, on the basis of the information submitted to date, it does not appear that the impacts on the waders for which the LWS has been designated, particularly LRP, can be mitigated. The proposed landscaping scheme **would not provide suitable habitat**, both because of the loss of the bare and sparsely vegetated areas favoured by the LRP and oystercatcher and because of the proposed tree planting, which would create perch points for corvids that would predate eggs and chicks."* (NWT emphasis – previously italicised)

The on-site landscaping scheme is not designed to provide suitable habitat for little ringed plover or oystercatcher – this is why off-site mitigation is proposed in the WMP.

*“The applicant has tried to apply the Offsetting metric to this site, but the principal predicted impacts are on species, not habitats and so this is largely irrelevant, as they cannot be incorporated into the metric. Even with the revision submitted for this Reg 22, I do not consider that the use of the metric is particularly helpful as it cannot accommodate the indirect impacts on waders in the wider area that would result from this development. it should be understood that this is a **partial** view, based only on habitats (which of course have somewhat conveniently been cleared on the site) and not including the substantive effects on species and thus on the integrity of the LWS.”*

The lack of accommodation of species impacts is acknowledged in the Offsetting Metric – it is nevertheless not ‘largely irrelevant’ as it is a tool being trialled in Nottinghamshire and a necessary component of the EIA process. It will hopefully be helpful in further development of the Metric to highlight – as we do – drawbacks such as the lack of consideration of impacts on species.

To re-iterate, cumulative impacts on waders were considered explicitly in the ES, and form part of the rationale for near-site mitigation which will expand upon the currently committed and proposed provision within the wider Colliery site.

In fact, as the WMP appendix explains, insofar as the Offsetting Metric presents a ‘partial’ view, it is by **underestimating** the biodiversity benefits of the mitigation scheme, since habitats of value for waders (improved grassland, bare shingle) do not score highly in terms of their ‘distinctiveness’ scores.

Finally, the site has not ‘somewhat conveniently’ been cleared; habitat conditions in summer 2013 resulted from coal recovery operations which preceded any consideration of the site as a possible Energy Centre location. It is debatable in any case whether creating suitable habitat conditions for a breeding Schedule 1 wader is ‘convenient’ from the point of view of environmental impact assessment, even though the habitats present are not valued highly in terms of ‘distinctiveness’ scores.