

Nottinghamshire

Wildlife Trust



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Nottinghamshire County Council
Planning Group
County Hall
West Bridgford
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NG2 7QP

11th May 2016
Our ref: JMB/Energy/Misson Springs
Your ref: ES/3379

FAO: Oliver Meek, Minerals Development Control

Dear Oliver

Re: Proposed hydrocarbon wellsite end exploratory hydrocarbon wells, Springs Road, Misson, Reg 22 submission.

Thank you for consulting the Nottinghamshire Wildlife Trust (NWT) on the above. I note that the proposal is for an exploratory hydrocarbon wellsite, comprising up to 2 exploratory wells, for a period of up to 3 years, and that the application does not include provision for hydraulic fracturing, although this may be the subject of a future application.

Further to our previous response, the Applicant has undertaken further ecological assessment work in order to respond to our reasons for objection. For clarity, I will not reiterate the contents of my previous response but will identify those questions that now are, or are not, satisfied.

1. Habitats

Outside the redline boundary, there are potential indirect impacts on habitats that may result from:

- a) Dust deposition
- b) Changes to the hydrological regime
- c) Changes to the hydrogeological regime
- d) Nitrogen and acid deposition

Changes to the hydrological and hydrogeological regime

Further hydrological and hydrogeological work has been undertaken in response to our queries raised. The consultants have modelled the potential effects of reduced flows to the Gresham Drain and concluded that there would not be a significant effect on water flows into the SSSI, from the proposed site, as the change in water level would equate to a reduction of 1cm. **If** this is accurate, then NWT agree that there is unlikely to be a significant effect for the relatively short duration of this proposed development. **We would expect however, that were this development to be approved, a rigorous monitoring regime be put in place to establish a baseline and then assesses the pattern and volumes of flows into the SSSI, and if they are affected to a greater degree than this, then the development should cease, or a means of recharging the ditch should be implemented. If this cannot be secured then our objection would remain.**

“6.1.4 Pollution of the Misson Training Area SSSI

The inclusion of this low sensitivity receptor is conservative because it is unlikely to be particularly dependent on groundwater conditions. There is also unlikely to be a meaningful groundwater pathway from the Proposed Development to the SSSI based on BGS mapping. Nonetheless, given the temporary nature of this phase, the footprint of the Proposed Development and the nature of the activities, the potential impact on this receptor is assessed as very low with a negligible adverse effect (not significant).”

It is NWT's view that a **known groundwater dependent SSSI is a high sensitivity receptor**. We do not agree that a groundwater pathway is “unlikely” based on the information contained in the WLMP, and the onus is on the **Applicant to demonstrate why they believe this to be the case**. Indeed the limitations section in the Report clearly says *“The hydrogeological assessment is based upon interpretations of groundwater and geological conditions in published information sources. It is possible that there is undocumented, undetected or unrevealed groundwater or geological conditions at, below, or in the vicinity of the Site, below the site or in the vicinity of the Site that are different to those that are assumed to exist.”* This provides no reassurance that the situation is well understood, and therefore undermines the analysis that follows from it.

For example, the Report states:

*“6.2.1 Pollution (via spillages) of the River Terrace Deposits and Alluvium Secondary A Aquifer, Mercia Mudstone Group Secondary B Aquifer and Misson Training Area SSSI
Spillages may occur on the well pad during this longer phase and pollute superficial deposits (low sensitivity) and Mercia Mudstone Group (very low sensitivity). Where horizontal flow pathways exist in shallow aquifer horizons, there is also potential for pollution to migrate*

towards the Misson Training Area SSSI. However the potential impacts are prevented or reduced by the environmental design and management (embedded mitigation measures) outlined in section 5 (wellpad and drainage design). Therefore the potential impact on these receptors is assessed as very low with a negligible adverse effect (not significant).

NWT do not agree with this conclusion, the superficial deposits should be classed as **high sensitivity**, as they are known to provide water to the SSSI. Throughout the assessment complete reliance is placed on the embedded mitigation measures, **but no evidence has been provided of where these techniques have been successfully used in such close proximity to a SSSI, at least part of whose water supply is provided through groundwater. It is essential that the applicant provides evidence to back up these assertions.** The drilling operation has the potential to allow infiltration pathways for drilling muds (low toxicity or otherwise) and other contaminants into the groundwater in the superficial deposits, and whilst the applicant has asserted that the techniques proposed would work in an exemplary manner, they have provided no evidence of where this has been done. In real life circumstances on construction and mineral sites, it is the case that things can and do go wrong, either through technical failures or human error, and that is how many pollution events occur.

NWT cannot find evidence presented in the information submitted to address this question and so this element of our objection remains.

Nitrogen and acid deposition

Further to our previous response, the applicant has undertaken further analysis of the emissions information. They continue to conclude that Nitrogen levels could be elevated to a level considered to be likely to have a significant detrimental effect, but argue that the modelling is overly precautionary. **This is, however, the modelling that is advised to be used by the EA and NE, so its conclusion should remain.** To mitigate for this potential effect, the applicant has suggested that once the generator details are known then any further measures to reduce the emission would be taken where possible. **But no assurance as to the feasibility of this is given and we assume that under BAAT this would be the case anyway, so this does not address our concerns.**

If a habitat is already stressed from exposure to these pollutants, then the 1% threshold has been set for a reason, and any increase above this could be detrimental. It should be noted that the applicant's modelling is based on generalised national datasets, as there are no NO_x diffusion tube data in the vicinity nor acid deposition monitoring of any kind, hence the models are not based on the specific conditions of either the site or the SSSI. NWT still do not believe, therefore that the interpretation of these data is correct, and that **there may be a risk to the more sensitive lower (and higher) plant species on the SSSI from these elevated levels.** The fact that the generation of elevated emissions would be mainly for the

9 months predicted for drilling, may mean that that effects on plant assemblages are not possible to monitor, as any detrimental impacts may take longer than this to become evident. NE may be able to provide input in this regard from their air pollution specialists.

As Catchment Hosts for the Idle, NWT do not, therefore consider that an adequate **WFD assessment** has been made of the impacts of this proposed development on either groundwater or surface waters.

2. Species

Great Crested Newts (GCN)

GCN were not found within 500m of the site, so there may be no direct impact on this species, however they breed in a ditch in Misson TG SSSI (as has been acknowledged by the consultants), this any reduction in water levels in this ditch as a result of the development might impact their breeding success. ***If the reduction in water levels is 1cm as predicted then this is unlikely to have a significant effect on GCN, but this should be monitored as described above.***

Bats

A noise assessment has now been made with regard to the effects of noise on roosting bats. The consultants cannot rule out a possible effect on bats roosting in Springs Cottage and so have recommended that drilling in Borehole 1 be restricted to outside the breeding season when bats may be most sensitive to noise. ***If this development were to be permitted then NWT would expect this restriction to be imposed.***

Birds

The results of the breeding bird survey have not been presented for Misson TG SSSI, so ***it is not possible to assess the impact of the considerably elevated predicted noise levels on these breeding birds in the SSSI.*** The applicant has now provided an analysis of the potential noise effects on birds based on various studies, none of which relate directly to most of the species that breed on this site, with the exception of owls, where the evidence on other owl species has been used to show that they are highly sensitive to noise. We agree, therefore, that Long Eared Owl are known to be particularly sensitive to noise and disturbance and that their regular breeding site lies within the potential areas of raised noise levels shown by the contours to be 50+dB(A) ***even*** with maximum mitigation (full enclosure of the rig), ***this therefore has a high likelihood of impacting this species and possibly other breeding bird species.***

Disappointingly, it still appears that no noise monitoring has been undertaken in the SSSI, so it is not known what the current baseline is, but it can be seen that a night time increase in level of 15dB(A) is predicted at Levels Farm which is a similar distance from the site, although it is closer

to Springs Road and so may have a higher baseline level. Thus in the absence of any evidence to the contrary from the applicant we remain concerned ***that birds in the western edge of the SSSI would be subjected to a least a 15dBA increase in night time levels and could be exposed to noise that would affect their breeding success. Until the results of the breeding bird survey on the SSSI are known, and a full assessment based on accurate data can be made, this area of concern remains outstanding.***

In the *immediate vicinity* of the site, at least 2 red list BoCC were recorded as breeding in addition to an amber list species. The consultants assert that there would be no noise impact on these birds, but present no evidence as to why this would be the case. Given that the Noise Report clearly *demonstrates that even with maximum mitigation*, the plantations around the site would be subject to noise levels in excess of 50-60dBA. This level of noise would be expected to reduce breeding success of these red and amber list BoCC, as they would be exposed to it for a whole breeding season, not just a short period of an hour or so that they might be experience as a result of agricultural practices in adjacent fields.

It should also be noted that the noise modelling for the highest rig was not based on actual measurements in the field, but on data supplied by a third party, this may not be accurate and may not reflect the stated higher noise power levels experienced for horizontal drilling, when torque on the top rig is highest. Xodis recognise in their report that there is “*a level of uncertainty*” para 7.3. over the modelling as a result.

As a result of this uncertainty, I note that the applicant has now proposed an acoustic barrier on the eastern edge of the proposed development site, which we had previously suggested. ***Were the development to be permitted NWT would expect this to be installed under condition..***

Water voles

The hydrological modelling results suggest that water levels changes could be relatively minor, ***were the development to be permitted, this should be monitored to ensure no effects on water voles.***

3. Site selection process

The site selection process describes the criteria for the choice of site, clearly describing a number of constraints, such as presence of a flood zone and proximity to SSSIs. The reasons for the choice of this site do not therefore appear to be consistent with those constraints. In the absence of any information on how the different constraints were weighted, it is not possible to conclude that this process was undertaken in a robust and rigorous manner. For example it appears that the presence of grade 2 land may have been given greater weight than very close proximity to a SSSI. Further explanation has now been provided on site selection, but still does still not address this question adequately, as it says that the assessment of no significant impact on the SSSI has been used in the weighting, ***but in our view there still could be significant effects, and a proper assessment had***

not been undertaken when the site selection was made, hence the need for this extensive Reg 22 submission.

4. Planning Policy

Given the absence of the necessary information to provide assurance that there would not be ecological impacts on a range of habitats and species, including at Misson Training Ground SSSI, NWT believe that this proposal **is not compliant with:**

- MLP Policy M3.7 - (Dust and Air Quality)
- M3.8 - (Water Environment)
- M3.17 - (Biodiversity)
- M3.19 - (Sites of Special Scientific Interest)
- M3.20 - (Regional and Local Designated Sites)

Nor is it compliant with the provisions of the **NPPF in paragraphs 109,118 and 120.**

As a result of the above, NWT **object** to this application. Please do not hesitate to contact me should you have any queries about the foregoing or if I can help in any way. I would be happy for you to forward this letter directly to the Applicants and/or to discuss these matters directly with them if that would be of help.

Yours sincerely,



Janice Bradley C.Env. MCIEEM

Head of Conservation

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Liz Newman, NE

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