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Wales

The Natural Resources Body for Wales Statement for Hearing Session 3: Ecological Issues

Thursday 25 March 2021 10.00am

Bwriad / Proposal: Proposed construction and operation of an energy recovery facility, including the formation of a new access on to Newlands Road and ancillary infrastructure.

Lleoliad / Location: Land off Newlands Road, Cardiff, CF3 2EU.

Eich cyf/Your ref: DNS/3236340

1. Surface water and watercourse management

i. Are NRW that the Council now satisfied with the surface water disposal and watercourse management arrangements proposed (as informed by subsequent discussions between the parties and the submitted Application Form for Pre-Application Approval of SuDS)?

Yes. See NRW's second consultation response (CAS-137038-X4J0)

ii. What changes to the submitted site layout would be needed to achieve satisfactory arrangements?

We are satisfied watercourse management arrangements can be secured via condition. See NRW's second consultation response (CAS-137038-X4J0)

iii. In the absence of any submission of a minor change to the submitted application details within the requisite period, can these changes in site layout be secured by means of a condition(s) instead?

See above.

iv. What conditions are needed in order to adequately secure these matters – are conditions needed over and above those already put forward by the parties?

NRW consider measures can be secured through a final approved Landscape Ecological Management Plan.

2. Emissions to Air - Impacts on Gwent Levels SSSIs and other sensitive ecological receptors

i. What is the NRW position concerning the relevant nutrient nitrogen critical load for the assessment of impacts on the Gwent Levels Rumney and Peterstone SSSIs in the light of the applicant's latest response – does it still maintain that a critical load of 10kgN/ha/yr should be used in spite of the points made by the applicant? If so, for what reasons does NRW not accept the applicant's arguments?

The applicant correctly states there is a lack of information on impacts of aerial nitrogen deposition on ditch habitats that are found in the Gwent Levels. This is largely because the Gwent Levels are a unique area. The applicant makes a comparison with other habitats, aiming to demonstrate that it is unlikely that any impact on the flora of ditches would occur due to nitrogen deposition.

They also consider that the high percentage of plants associated with the ditches occur at sites of intermediate fertility or on richly fertile sites so the aerial depositions would not have adverse effects on the interest features of the SSSI. They also consider that the assessment on air quality can present a misleading picture because Nitrogen is not a key factor causing a reduction in the interest features of the reens (ES Addendum 2: 10.5.65, 10.5.67 & 10.5.69).

We've previously explained that a key part of the Gwent Levels are the traditionally drained fields via a system of grips (also referred to as ridge and furrow) and the marshy grassland habitat that can develop within those grips and in some fields. The marshy grassland is a nitrogen sensitive habitat, hence the need to understand potential impacts using the lower range.

We would like to clarify that the 'acid' marshy grassland term was used in previous communications as a relative term to distinguish typical forms of marshy grassland from the rarer types, which mainly occur in conditions of higher pH ('base-rich'). The 'acid' marshy grassland occurs on a range of soil's pH levels, not just where soil's pH levels are very low.

Therefore, the pH levels from the soil series descriptions are not useful without data from the specific area we are concerned with. The annual critical load level of 10-20kg/ha is for typical marshy grassland which is referred to as 'acid' marshy grassland. A higher level of 15-30 is used for base-rich marshy grassland, but this form is uncommon – less than 2% of marshy grassland in Wales is thought to be of this type. Both 'acid' and 'base-rich' forms have been recorded on the Gwent levels, but the acid form appears to be more frequent.

The 'ecology' Technical Note (DOC 105) produced by the applicant states that the critical load range of 10-20 kg/N/ha/yr is not relevant in this case because it does not relate to the habitats found in the Gwent Levels. We confirm marshy grassland habitat has been recorded on the Gwent Levels. The Technical Note (1.2.5) states that the NRW Phase 1 habitat mapping does not include the marsh grassland community B5, as described in the

handbook for Phase 1 habitat survey. This is correct, but it must be noted that large areas of the Gwent Levels - Rumney and Peterstone SSSI were not accessed during that survey. Therefore, those areas were not mapped during the Phase I Survey. Our advice is those areas contain the marshy grassland habitat, specially within the system of grips. The grips within the locality are clearly visibly from aerial images, as shown on the attached image.

The applicant claims the nitrogen deposition from the proposal's stack emissions would be insignificant when compared to nitrogen inputs of other sources. The applicant gives the example of agricultural activities on the Levels. For example, this could be the application of fertilizer on farming fields.

We should clarify that application of fertilisers, alterations in the pattern or frequency of grazing by farm stock, and alterations in stock feeding practice are operations which are included in the list of 'Operations Likely to Damage the Special interest' for the protected site and therefore would not be allowed without consultation and consent from us. Those operations included in the OLDS list (attached) are only allowed after assessment of their potential impacts due to nutrient enrichment.

We accept there is uncertainty regarding non-aerial nitrogen, which is referenced by the applicant in their ecology Technical Note (pages 4-5), including fertilizer application rates and their impacts as well as other potential sources such as private foul drainage discharges. However, we do not accept that application rates 'can be as high as 300 kg/N/ha' (1.2.21). To provide context, [Defra data suggest that a more representative value on grassland is about 55 kg/ha/yr](#) (grazed column, page 26; also grass column, page 13). Furthermore, many grasslands in the Levels are grazed by horses and likely to receive little additional fertilizer.

It is appropriate to acknowledge that there is a credible pathway from aerial nitrogen depositing on the Gwent Levels and entering the ditch systems. However, how this could affect the protected site is challenging based on the assessment so far. The effect of Nitrogen on the ditch system can only be robustly determined by its water quality (not air quality). As the applicant points out, there is uncertainty over this and unfortunately the water chemistry data are not great. However, as they note, the ditch flora is eutrophic in nature (rich in nutrients) and not mesotrophic (moderate in nutrients) as we would like. The ditch feature is therefore in unfavourable condition due to high nutrient levels.

On this basis, given the lack of information and data and that the receptor is of national importance (SSSI), it is appropriate to use the precautionary lower critical load to understand and assess potential likely adverse effects.

ii. Does NRW accept the additional modelling presented at section 6.2 of the revised Air Quality Assessment (Doc 35 Version 2) and the applicant's conclusions as to the significance of the results? If not, why not?

The revised Air Quality Assessment (AQA) provides modelling results on Nitrogen deposition using the lower critical load of 10Kg/N/ha/yr. Table 30 under section 6.2 identifies that two out of the three SSSIs (SSSI2 and SSSI3) exceed the 1% significant effect threshold (meaning they should not be screened out of further assessment at this point).

The applicant claims the nitrogen deposition from the proposal's stack emissions would be insignificant when compared to the nitrogen inputs of other sources, such as agricultural activities discussed above. As shown in Table 30, there is already an exceeding background and we accept this is as a result of other activities.

It is also worth considering this increase in terms of Process Contribution (PC) as a % of the exceedance (not the % of the overall deposition / Predicted Environmental Concentration). For SSSI2, the loading exceeds the 10kg/N/ha/yr critical load by 3.16 kg/N/ha/yr. The PC would increase this by 0.45 kg/N/ha/yr, or **approximately 14%**. For SSSI3, the increase is **approximately 7%**.

Although these could be argued as small increases overall, it is a significant step in the wrong direction.

Any potential adverse effects (leading to damage to the SSSI features) could, in theory, be offset through compensation/mitigation measures. This could be in the form of managing additional land within the Gwent Levels, by removing farming practices and introducing wetland habitat. However, we appreciate this approach requires significant preparation and would not be feasible at this point in the determination. Please note, we have not discussed this with the applicant previously.

In terms of a future permitting application, this issue will be considered again. In this respect, the applicant may wish to comment on the likelihood of any technical solutions available to reduce the predicted Nitrogen deposition in the context of the facility/plant processes.

In summary, the application demonstrates that the current background concentration is in exceedance and the new process contribution will cause an additional small increase. It is our view that this cannot be dismissed as insignificant; but instead, the small increase should be considered in the overall balance when determining the planning application.

3. Protected species: bats; dormouse; reptiles/amphibians

i. Bats: Is the bat habitat value of the site adequately safeguarded by the development design? - in particular as regards:

• Retention and management of vegetation providing foraging corridor potential

See NRW's second consultation response (CAS-137038-X4J0)

• The design and control of external lighting during construction and operation

See NRW's second consultation response and suggested lighting condition (CAS-137038-X4J0)

• Noise and vibration effects during construction and operation

Given the industrialised nature of the area and proximity to the South Wales Cardiff-London Mainline, it is likely that any protected species using the site have become habituated to a high degree of noise and vibration.

• What conditions would be necessary to ensure the acceptability of the development in these terms?

See NRW's second consultation response (CAS-137038-X4J0)

ii. *Dormouse:*

• *Is the existing level of evidence regarding absence of observed on-site dormouse activity and quality of dormouse habitat sufficient to enable a decision that the development is acceptable in these terms?*

The applicant has ruled out the need to consider dormice as part of their proposals. As such no dormouse surveys have been carried out to support the application. On this basis, there is no evidence to confirm an absence of dormice on site. Furthermore, there is no specific assessment considering the quality of the habitats on site for dormice.

Table 10.4 (ES Addendum 2, page 147) sets out the habitats present on site. This shows encroaching bramble scrub across the site and some of the vegetation along the SSSI ditch may be suitable for dormice, although this should be considered as sub-optimal. Bramble scrub could, however, be used for nesting and foraging at times of the year.

We note the comments made regarding dormice records nearby within the Local Impact Report. In light of this; the habitat connectivity between those records; and potentially suitable habitat on the application site, it would be inappropriate to consider that the site is

unlikely to support the species. The precautionary approach would be to presume presence of dormice on site.

• *If not, what further evidence is needed to address this?*

In view of the above, if it is considered appropriate to presume presence; the application would need to assess the potential impacts of the proposals on dormice. This would include details on the likely impacts as well as appropriate mitigation and/or compensation that will be put in place to offset predicted impacts.

At this juncture, we would recommend the following evidence/information:

- a. Details of the habitat to be lost, habitat to be created and retained which should identify the habitat type, extent, location and value for dormice on an appropriately scaled and annotated map;
- b. A detailed assessment of the likely impacts of the proposals on dormice;
- c. Dormouse Conservation Plan which sets out all the mitigation and/or compensatory measures that will be put in place to offset the anticipated impacts on the species.

• *Would it be possible/appropriate to resolve this matter by means of a condition? If so, what form should the condition take?*

If the applicant provides a detailed assessment of impacts of the proposals on dormice and outlines the proposals for the conservation of dormice then, providing that the latter is sufficient to assess the proposals, it would be acceptable to use a planning condition to agree a detailed Dormouse Conservation Plan post-determination and prior to works commencing on site. The LEMP will also need to refer and include dormouse conservation measures, set out in an agreed Dormouse Conservation Plan.

Based on the new information, we advise that a European Protected Species Licence is applied for before any works commence.

iii. Reptiles/amphibians:

- *Do all parties agree that in the light of the applicant's inability to undertake great crested newt surveys at ponds 4 and 5, the proposal to adopt a precautionary approach via a non-licenced method statement is appropriate and acceptable in the circumstances? If not, what is the right approach?*

In light of the access restrictions to ponds 4 and 5 for eDNA great crested newt surveys, adopting a precautionary approach, based on the assumption that GCN are present or may be encountered during the development work, is acceptable. It should be noted that if GCN are encountered, works should cease until a European Protected Species licence has been obtained.

Therefore, we agree with the approach to GCN for a method statement (or Conservation Plan) secured through a planning condition.