Campaign for the Protection of Rural Wales
Brecon and Radnor Branch
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19 January 2019

Dear Holly-Ann Hobbs

HENDY WIND FARM: Land Off A44 SW Of Llandegley Llandrindod Wells Powys

Application for discharge of condition 40 from P/2014/0672 (APP/T6850/A/17/3176128):HMEP

CPRW Brecon & Radnor Branch reserves the right to make further representations in response to this application.

Phasing of development: It has emerged from documents submitted for discharge of condition 21 that the developer is treating this development as consisting of two phases, Phase One being the installation of Turbine 5 and the remaining construction work making up Phase Two. Phase One construction has failed to adhere to approved plans and the developer is in breach of Condition 2. The developer has not made clear even how Phase One is to be completed and how, for example, AILs will arrive on site. Once Phase One is complete, it is not clear whether the developer intends to revert to approved plans and access and AIL routes for the remainder of the development or not. It follows that information submitted in relation to Phase One is not sufficient for discharge of conditions which, of course, have application to the entire development.

All new development and site access options that are now being raised by the developer or all those for which he has previously received planning permission must be treated as possible elements in this development and must be fully taken into account before conditions can be discharged. Any plans, construction or management arrangements that differ from the requirements of Condition 2 require new applications.

Condition 40

> ***No development shall commence until a Habitat Management and Enhancement Plan (HMEP) has been submitted to and approved in writing by the Local Planning Authority. The Habitat Management and Enhancement Plan shall include:***
>
> ***a) the nature conservation management and enhancement objectives including the management, restoration or creation of priority habitats and/or species, and a timetable for its implementation;***
>
> ***b) confirmation of the deliverability of the identified measures; and***
>
> ***c) all mitigation measures outlined in the Environmental Statement.***

The Habitat Management and Enhancement Plan must be implemented as approved unless otherwise agreed in writing by the Local Planning Authority

The HMEP submitted to discharge Condition 40 does not provide a front-page with author, qualifications and date in the HMEP. These should be required for professional reports.

Introduction

The application states that the first purpose of the HMP is to "*identify the nature conservation management objectives of the scheme*" but Condition 40 actually says: "*The Habitat Management and Enhancement Plan shall include: the nature conservation management and enhancement objectives including the management, restoration or creation of priority habitats and/or species, and a timetable for its implementation*"

- **no enhancement objectives involving tree or hedge planting or restoration or creation of priority habitats and/or species or timetable for implementation are described. We expect a project with considerable land take, creating a large amount of hard standing in open country-side, to incorporate priority habitats creation to offset the environmental losses incurred. We expect NRW to require this of the developer as part of a HMP.**

Predicted Effects and Conservation Management Objectives

With respect to the Wye SAC "*one of the principal aims of the construction of the construction period is to ensure that the drainage and construction methods effectively prevent the generation or release of sediment or pollutants*"

BRB-CPRW attaches a professional hydrology report which concludes that the surface water management plan does not provide the quantitative and site-specific data to ensure effective prevention of generation or release of sediment or pollutants. (Appendix 1)

Table provided in HMP

- **No habitat creation described throughout the table.**
- **No restoration measures described throughout the table.**

"keep 20m from watercourses where possible", "keep turbine bases 20m from watercourses"

- **At this stage of discharging pre-commencement conditions there should be site-specific measures for the construction management of all areas where the plans impinge on watercourses (see Hydrology Report Appx 1)**

Figure 5. The 20m (yellow) and 50m (pink) buffer around waterways (blue) in the area of the wind turbine development site (red outline). Background map OS 1:10,000 open raster.

"limit the use of working lighting to between 7.30 and 19.00"

- **This has not been observed so far.**

"*curlew surveys and establishment of protection areas*"

- **This is the responsibility of Powys CC since Curlew are not European Protected Species. Without details of access to the site (which have not been provided), it is impossible to plan for protection of nesting curlew on Common Land. There are reports of curlew being driven off at Bryn Blaen and we fear that if intention to nest is suspected, it may be prevented by disturbance.**

"*pre-erection bat surveys*"

- **The "pre-commencement bat surveys" described in the BPP (Condition 39) have become "pre-erection surveys". The Developer's hurry is no excuse for avoiding pre-commencement bat surveys.**

"Vantage point surveys to identify flight path of birds"

- **The Developer's hurry is no excuse for avoiding pre-commencement bird surveys.**

"*use micro-siting allowance to avoid sensitive areas*"

- **The micro-siting measures (application to discharge pre-commencement Condition 9) mention peat with respect to the track to T6 and micro-siting with respect to ProWs but none of the other issues required by Condition 9. In particular, there is no mention of "sensitive areas' or protection of water courses.**

Conclusions

- **This is not a Habitat Management and Enhancement Plan. There is no mention of Enhancement through habitat creation of planting and no timetable for this.**
- **There are no undertakings to restore or compensate for habitats damaged or lost through construction and no timetable for these measures.**
- **There are no plans of site specific measures and so the Developer is not bound to any site-specific actions.**
- **Given NRWs declared limited remit, we do not know whether NRW considers is for Powys County council to secure compensatory environmental enhancement via a fit-for purpose HEMP as requested by NRW in 2015. In any event we trust the two authorities will cooperate to ensure that this is secured and not let this matter drop because neither assumes responsibility.**

This response has been compiled by members of the CPRW Brecon & Radnor Branch Committee.

NB We are copying in NRW and Radnorshire Wildlife Trust because Powys have told us that they will not put our objection on the planning Website

Sincerely

Jonathon Colchester

Chairman of CPRW Brecon & Radnor Branch

Appendices

2019: John Rodda for BRB CPRW: report on Developer's SWMP

2015: Angharad Crump: NRW Statutory Consultee response to ES.

Water Resource Assoc LLP

A network of consultants in hydrology, water resources and environmental issues

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Mr Jonathan Colchester
Chair Brecon and Radnor Branch
Campaign for the Protection of Rural Wales
Correspondence by E-mail

15th January 2019

Hendy Windfarm Development Hydrological Impacts

Dear Mr Colchester,

This letter provides a review of both the Environmental Statement (ES) submitted as part of the application to construct seven wind turbines at the Hendy Windfarm by Cunnane Town Planning dated 27th June 2014; and a review of the Surface Water Management Plan (SWMP) prepared by WYG Environment and Planning (Northern Ireland) Ltd dated 15th November 2018. The ES was submitted as part of the initial application and the SWMP was submitted in response to the conditions requested by the Local Planning Authority.

The review of both documents is specifically focussed on the impact of the development on the hydrology, and the proposed mitigation measures to be implemented. Background information on the development site was sourced through the use of Geographical Information Systems (GIS) and a visit to the area of the development on public rights of way was undertaken in January 2019. Water Resource Associates (WRA) have been providing consultancy in hydrology and water resources studies in the UK and overseas since 1994 and we have been involved in a number of planning Inquiries to provide expert advice on hydrological issues.

The ES includes a 42 page section on the hydrology and hydrogeology, and it states in the text that the section *"..should be read in conjunction with Technical Appendix 10.1.."*. It is understood that Technical Appendix 10.1 was not provided with the original ES submission and only made available as a rebuttal to the proof of evidence submitted by The Campaign for the Protection of Rural Wales during the Public Inquiry.

The critical evaluation of the ES and Technical Appendix was made with reference to particular criteria which have been used with previous WRA studies. The criteria aim to demonstrate the overall understanding of hydrology, the ability to use standard methods and software for hydrological analysis, and the particular issues for the site and the type of the development. These criteria are listed below and the assessment of the ES is given in Table 1 in relation to each criteria as either poor, moderate or good.

1. Identify the catchment area where the wind farm/development is to be located;
2. Present details on the current catchment characteristics;
3. Present baseline flow and water quality for the catchment's receiving waters;
4. Consider the impacts on hydrology during the construction phase;
5. Consider the impacts on hydrology during the operational phase;
6. Quantify impacts either through modelling or monitoring;
7. Propose remedial measures to minimise the impacts;
8. Apply proper approved hydrological methods for the assessment.

Table 1. Assessment of the ES based on the 8 criteria

Criteria	Assessment	Reasons
1.	poor	The catchment area at the site is not identified, no maps are provided showing the catchment boundary
2.	poor	Only the characteristics of the site, not the catchment are given in writing, but no maps are provided on the topography, geology, soil or landuse
3.	poor	The nearest gauging stations are not identified, no observed flows or estimates of flows are presented; rainfall is given as a range in the average annual totals over the site; water quality is only described by repeating the Environment Agency classification.
4.	good	Impacts during the construction phase on the development are discussed in detail
5.	good	Impacts during the operational phase on the development are discussed in detail
6.	poor	There is no modelling to provide estimates of quantities (e.g. kg of sediment) or proposed monitoring which can inform on the impacts of the development.
7.	moderate	A large number of measures are proposed, however these are only described generally and no plans are presented showing how particular measures will be implemented at particular locations.
8.	poor	The assessment made no use of any standard hydrological methods, such as obtaining data from the National River Flow Archive, presenting maps from NRW/EA, generating flows using the Flood Estimation Handbook[1], or the use of Geographical Information Systems (GIS).

The Technical Appendix for the ES is no more than a standard site report provided by a 3rd party for geological investigations. It makes no reference to the hydrology and the applicant or their agents do not provide any further comments on the information provided.

The local authority discharge of consent conditions (as provided in Annex A of the Cabinet Secretary's decision letter [2]) specifically requested the following under the topic of hydrology:

"*No development shall commence until a Surface Water Management Plan containing details of the surface water drainage system (including a means of pollution control) has been submitted to and approved in writing by the Local Planning Authority. The plans must be implemented as approved unless otherwise agreed in writing by the Local Planning Authority."*

"No development shall commence until a water quality monitoring strategy (including monitoring at sources of private drinking water supplies) has been submitted to and approved in writing by the Local Planning Authority."

Reports were submitted in November 2018 to meet these conditions. The SWMP includes a section on surface water quality monitoring, but a separate report for the water quality monitoring strategy was also submitted.

The location of the seven turbine sites are shown in Figure 1. A visit to the site on 11th January 2019 confirmed that the development is an upland area of steep to rolling topography with rough grazing, moorland and forestry, as shown in Figure 2. The area includes the upper reaches of the River Edw (Figure 3) and the Nant Brook - both tributaries of the River Wye which has been designated as a Special Area of Conservation. The visit also confirmed that work had begun on Turbine number 5, the most northerly of the sites which was viewed from the byway open to all traffic in Figure 4. This shows the extent of excavations at the site and the amount of bare soil which has been uncovered.

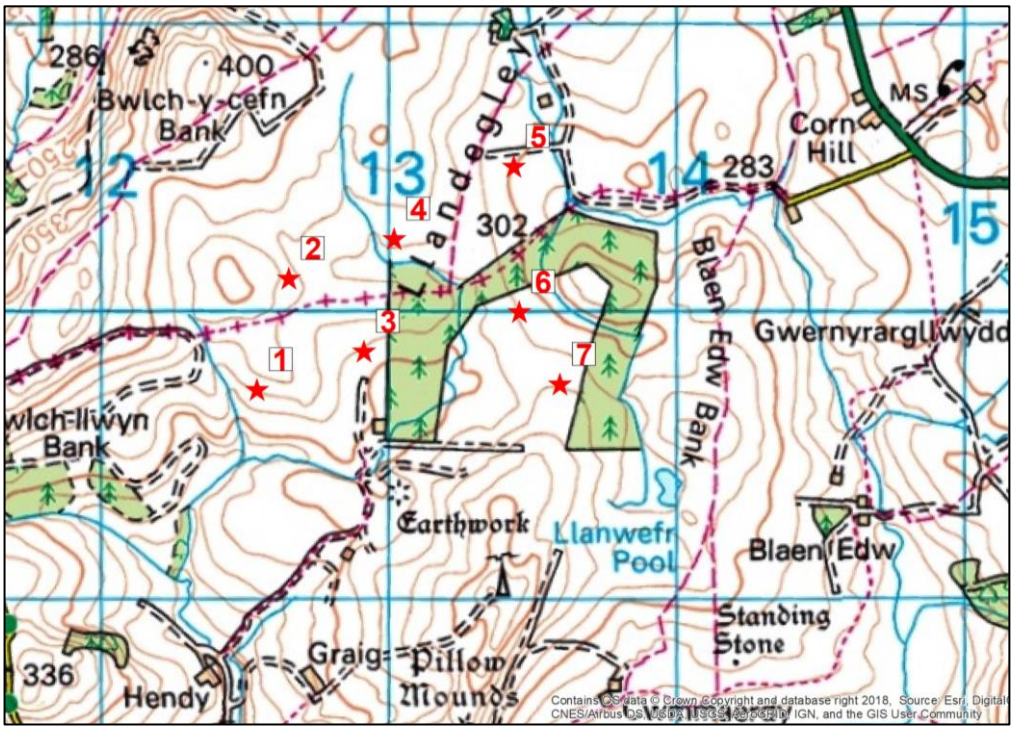

Figure 1. The wind turbine locations shown in red, background map OS 1:25,000 sheet 200.

Figure 2. View of the landscape of the development site.

Figure 3. Headwater stream of the River Edw draining from the area of Turbine 5.

Figure 4. Site workings at turbine 5.

From this evidence the immediate concern would be the erosion of the exposed topsoil into the waterways and the impact on the increased sediment load further downstream into the River Wye. The ES stated that one of the mitigation measures would be *"scheduling construction activities to minimise the area and period of time that soil will be exposed, particularly during winter periods"*. Clearly as the work has started this particular mitigation has not been imposed.

The SWMP does include more details on the mitigation measures which are required however it is still lacking in a lot of the basic information. No maps are provided showing the catchment area and the watercourses of the site, just a map showing the location of the proposed development and the location of water quality monitoring sites.

The mitigation measures should have included estimates of the design rainfall and associated flow for the headwater catchments using the Flood Estimation Handbook in accordance with the latest sustainable drainage system (SUDS) guidelines[3]. These would have included the estimate of the 100-year 6-hour duration rainfall and associated surface runoff to comply with the requirements of a surface water management plan. Culverts are proposed at road crossings, design flow estimates will also be needed in order to provide a proper sizing of the culverts, otherwise flooding of the access road would occur which could cause further contamination and potentially damage to the roads. Other models such as GLEAMS[4] could be used to estimate the associated sediment loads which could be expected to be eroded in a worst case of the design rainfall during construction activities with the maximum area of exposed soil. This would allow for a proper design of the measures, simply implementing measures without an estimate of their capacity would have no ground for justification if a measure were to fail and cause contamination.

A proper consideration of mitigation features also needs to be included. It appears that much of the text describing mitigation in the SWMP is simply generic, and in many cases does not consider if these are appropriate for the type of the development and the setting within the landscape. For example, the use of swales is proposed for turbine bases, tracks, compound, sub-station and crane pad construction mitigation. Swales are described in detail in the current SUDS guidelines and are shallow ditches with a 1 in 4 side-slope which are included in designs not to convey water but to collect water from impermeable surfaces and allow the gradual infiltration into the soil/groundwater or loss through evapotranspiration. The swales are described as having a maximum depth of water as 0.3m. To comply with the 1 in 4 side slope each side of the swale would need to cover a distance of 1.2m. Assuming a base of 1m, the total width would need to be 3.4m. The excavation of a swale along side the type of access tracks in the steep to rolling topography of the wind turbine site, such as that shown in Figure 1, would not be possible.

Other methods such as the use of GIS to produce maps and perform spatial analysis should have been demonstrated. For example, a common mitigation method mentioned throughout the SWMP (and ES) is the limiting of any construction work where possible to areas outside buffer from each waterway. The ES used a 20m buffer but the SWMP suggested a 50m buffer. Neither report provided any maps indicating the extent of these buffers in relation to the development area. Such mapping is a relatively straightforward exercise using GIS software. An example of these buffers for the 4km area surrounding the development site is shown in Figure 5.

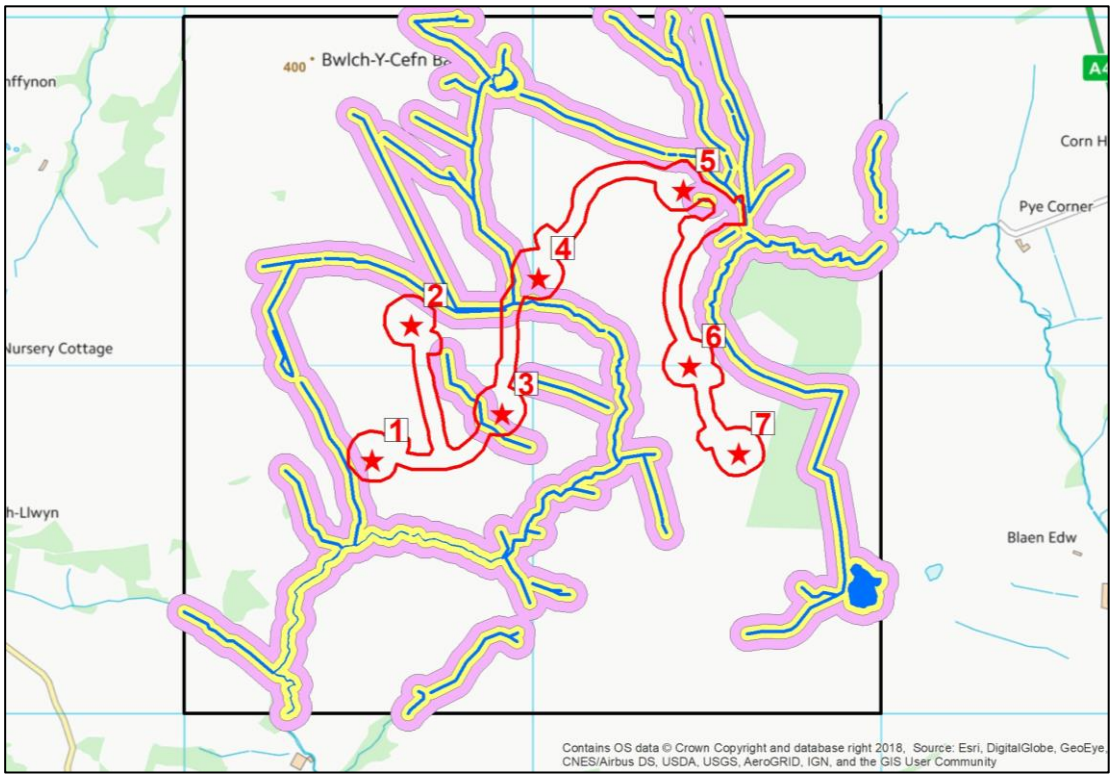

Figure 5. The 20m (yellow) and 50m (pink) buffer around waterways (blue) in the area of the wind turbine development site (red outline). Background map OS 1:10,000 open raster.

It is our opinion that both the ES and SWMP do not meet the requirements expected when considering the impact of the proposed development on the hydrology. There is no information on the catchment hydrology and no quantification of the potential impacts and no proper design of mitigation measures including a surface water management plan and monitoring of water sources. This letter has demonstrated our concern through visiting the site and observing the works which are currently being undertaken. It has also provided examples of the type of information which should have been included within the reports for mitigations measures. It is essential therefore that the proper level of information is submitted and approved by the Local Planning Authority prior to the continuation of works.

Yours sincerely,

Dr. Harvey J. E. Rodda *BSc., PhD., FRGS, Chartered Water and Environment Manager*
Partner

For and on behalf of Water Resource Associates

References:

[1] Institute of Hydrology (1999). Flood Estimation Handbook, Wallingford, Oxfordshire.

[2] Cabinet Secretary for Energy, Planning and Rural Affairs Decision Letter Ref: qA1320857 25th October 2018.

[3]Woods-Ballard, B., Wilson, S., Udale-Clark, H., Illman, S., Scott, T., Ashley, R., and Kellagher, R. 2015. The SuDS Manual. CIRIA Publication C753, London.

[4]Knisel, W.G. 1993. GLEAMS – Groundwater Loading from Agricultural Management Systems, USDA, Tifton, Georgia, USA.

Cyfoeth Naturiol Cymru
Natural Resources Wales

Ein cyf/Our ref: CAS-13129-K3H8
Eich cyf/Your ref: P/2014/0672

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Ms Jayne Foxley,
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18/12/15

Dear Ms Foxley,

Proposal	Full: Construct and operate 7 wind turbines with a maximum tip height of 110m and maximum hub height of 69m together with ancillary development comprising substation, control building, new and upgraded access points and tracks, hardstanding and temporary compound and associated works
Location	Land off A44 SW of Llandegley Llandrindod Wells Powys

Thank you for consulting Natural Resources Wales regarding the additional information dated 24th March 2014 submitted by the agent which was received by us on 25th November 2015.

We have the following comments to make on the latest submission.

- **Protected Sites**
    - **Habitats Regulation Assessment**

The ES states that the proposed development lies within 3km of the River Wye Special Area of Conservation (SAC). In our letter dated 22nd December 2014 we objected to the determination of the planning application until a transparent HRA for the River Wye SAC had been prepared.

We acknowledge the updated HRA that has been prepared by ADAS in support of the planning application dated February 2015.

We are satisfied as demonstrated in the HRA, that the proposed development will not have any significant effects on any protected sites providing that the mitigation prescribed in the HRA will be implemented in full.

We consider as previously advised that all the mitigation identified in the latest HRA shall be detailed in the CEMP which shall form subject of a pre-commencement condition of any planning consent given for the development.

- **Protected Species Protection Plan**

  - **Protected Species Protection Plan (PSPP)**

The approval of a Protected Species Protection Plan (PSPP) should form part of a pre-commencement condition of any planning consent given for the proposed development.

The PSPP shall include all of the mitigation outlined in the ES to ensure that the development has no detrimental effect on the maintenance of the favourable conservation status of protected species.

  - **Habitat Management Plan (HMP)**

The approval of a Habitat Management Plan (HMP) should form part of a pre-commencement condition of any planning consent given for the proposed development.

As we have previously advised, the HMP shall include all of the mitigation measures outlined in the ES.

To conclude, NRW does not object to the proposed development. We thank you for consulting with NRW. Please do not hesitate to contact us if we can be of any further assistance to you.

Yn gywir / yours faithfully

Angharad Wyn Crump MRTPI
Uwch Swyddog Cadwraeth / Senior Casework Officer
Gwasanaeth Cynghori Cynllunio Datblygu /
Development Planning Advisory Service