

Maes Y Ffynnon,  
Penrhosgarnedd,  
Bangor,  
Gwynedd  
LL572DW

Wrexham County Borough Council,  
The Guildhall,  
Wrexham,  
LL11 1AY

ebost/email:  
northplanning@cyfoethnaturiolcymru.gov.uk

23/08/2021

Annwyl Mared Rees-Jones,

**BWRIAD / PROPOSAL: Solar park and battery storage facility**

**LLEOLIAD / LOCATION: LAND TO THE NORTH OF THE FORMER MAELOR GAS WORKS, WREXHAM**

Thank you for consulting Cyfoeth Naturiol Cymru / Natural Resources Wales about the above, which we received on 30/07/2021.

**We have concerns with the application as submitted because inadequate information has been provided in support of the proposal. To overcome these concerns, you should seek further information from the applicant regarding flood risk and European protected species. If this information is not provided, we would object to this planning application. Further details are provided below.**

**We also advise that based on the information submitted to date, conditions regarding European protected species and ground water protection should be attached to any planning permission granted and the document identified below should be included in the approved plans and documents condition on the decision notice. Without the inclusion of these conditions and document we would object to this planning application.**

1. Construction and Environment Management Plan (CEMP) (within the Surface Water Management Plan - Appendix D).

**Flood risk**

The site lies partially within Zone C2 as defined by the Development Advice Map (DAM) referred to under Technical Advice Note (TAN) 15 Development and Flood Risk (July 2004).

The development proposal is for the construction of a large solar farm and battery storage facility and is considered to be 'less vulnerable' development.

We have reviewed the Flood Consequences Assessment (FCA) submitted in support of the application (ref: 258/FCA/v2, May 2021, Corylus Ltd). We have previously reviewed the hydraulic model and associated hydrology at statutory pre-application stage and were satisfied that these were acceptable. We therefore do not intend on providing further comments on these elements.

The FCA has assessed the flood risk posed to the solar panels in the 1% Annual Exceedance Probability (AEP) event with an allowance for bridge blockage. A medium proportion blockage has been adopted which is considered reasonable based on the argument presented in the FCA and the size of the bridge opening. The outputs show that flood depths in this event on land where the solar panels are proposed are generally less than 0.5 metres, with some discrete areas subject to flood depths of up to 0.7 to 0.8 metres on the eastern edge of Field 1A. In terms of flood risk mitigation, the FCA states that the front edge of the majority of the solar panels will be 0.8 m above ground level, which would provide a 300 mm freeboard above the design flood level. On the eastern edge of Field 1a, the edge will be set 0.9 to 1.0 metres above ground levels to mitigate the increased flood depths here. All other electrical equipment would be located outside of the modelled flood outlines. We are satisfied that the proposal complies with A1.14 of TAN15.

We do have concerns with the impact of the proposals on flood risk elsewhere. We have previously acknowledged the difficulties in modelling the proposed scenario for individual structures such as solar panels. This has been investigated through adopting an increased roughness value to account for the impact of the solar panel supports on flood flows. The increase may be overly conservative. The analysis indicates that some increases in flood depth would be expected for the 0.1% AEP event. These are generally within the modelling tolerance of 5 mm (this is the modelled tolerance used to report an increase in flood risk, as outlined in [GN028: Modelling for Flood Consequences Assessments](#)). However, these are some fairly large areas where detriment in excess of 5 mm is identified, up to a maximum of 90 mm. The depth difference maps do not show the redline application boundary or ownership boundary and we would advise that this is added to make the figures easier to interpret. The identified increase appears to be to third party land, north of Field 2, west of Field 1a, and upstream of the site near the Mainetti building. The reporting in the FCA indicates that increases in the vicinity of Field 2 and 1a are in the region of 40 mm and 30 mm respectively. In accordance with A1.12 of TAN15, there is a requirement for the FCA to demonstrate that the proposal will not result in increased flood risk elsewhere to third party land or property. As it stands, the FCA fails to demonstrate this, as there are clear increases in flood risk to third party land. We therefore raise concerns with the proposal. An updated FCA should be submitted which demonstrates that the proposal can be developed without increasing flood risk elsewhere.

If, contrary to the requirements of TAN15, your Authority is still minded to grant permission, we should be informed of all matters that influence this decision, prior to granting permission, allowing sufficient time for further representations to be made.

## - Flood Risk Activity Permit

Based on the proposed plan, all development is set back from the Afon Clywedog. As the Afon Clywedog is a Main River, we may undertake maintenance activities along its length under our permissive powers. We require at least an 8-metre easement to be provided from the top of bank to any structures (such as perimeter fencing). A Flood Risk Activity Permit (FRAP) may be required under the Environmental Permitting Regulations (2016) for any works in, over, under or near a main river or within a flood plain.

## Protected Species

### Great Crested Newts

The application site has been subject to assessment (Robertson, M. (2021). Solar Park and Battery Storage facility at Land to the North of Maelor Gas Works, Marchwiel, Wrexham, LL13 0UN: Preliminary Ecological Survey. Corylus Ltd. Unpublished) in respect of the great crested newt. The submission, however, fails to identify the overall national importance of the population of great crested newts present within the environs of the Wrexham Industrial Estate.

In our view, the overall proposal has the potential to cause disturbance to great crested newts and/or loss or damage to their resting places. Great crested newts (GCN) and their breeding and resting places are protected under the Conservation of Habitats and Species Regulations 2017 (as amended).

We consider the ecological report is unsatisfactory for the purposes of demonstrating the proposal is not likely to be detrimental to the maintenance of the favourable conservation status of the local population of GCN. Our reasoning for this statement is based on the number of extant records of the species in the environs of the application site, together with the inadequate detail concerning compensatory proposals, including but not limited to extent; long term management and monitoring.

We therefore advise that your Authority seek the following further information from the applicant for the purposes of demonstrating the proposal is not likely to be detrimental to the maintenance of the favourable conservation status of the local population great crested newt, prior to determination. In our opinion, the Wrexham Industrial Estate and its environs supports a nationally important population of GCN that is in “unfavourable” conservation status.

Further information that should be sought, but not necessarily limited to:

- Submission and implementation of updated details and plans concerning GCN avoidance and mitigation measures include fence construction and maintenance. Submission to include timescales and reporting requirements;
- Submission of (further) details concerning on site compensatory proposals including plans, extent, access, current and proposed tenure. Details to include areas of terrestrial and aquatic habitat to be retained, enhanced and created. Submission to include timescales and reporting requirements.

Further to the above we would also request the Local Planning Authority impose the following condition:

Condition 1: No development shall commence until a GCN Conservation Plan has been submitted to and approved in writing by the Local Planning Authority.

The GCN Conservation Plan should include but not limited to:

- Submission of a long term site management (not less than 25 years) that includes defined aims and objectives together with current and favourable conservation status of the local population of GCN; habitat management prescriptions; contingency measures if fish or invasive non-native species (INNS) are detected; proposals that are capable of being implemented in the event of failure to undertake or to appropriately undertake identified or contingency actions; site liaison and wardening; licensing requirements for undertaking habitat management and surveillance; current and any proposed changes to tenure of the compensation area [tenure to accord with the definition of “responsible” body as defined by Defra in respect of Conservation Covenants (see [https://consult.defra.gov.uk/wildlife-management/conservation-covenants/\\*](https://consult.defra.gov.uk/wildlife-management/conservation-covenants/*)); persons or bodies responsible for undertaking management and surveillance together with required skills and competencies; reporting requirements; and proposed dates for updating or revising the management plan;
- Submission of details concerning the installation and maintenance of an amphibian friendly surface water management system that does not include gully pots;
- Details of timing, phasing and duration of construction activities and conservation measures;
- Timetable for implementation demonstrating that works are aligned with the proposed development;
- Ecological Compliance Audit, including key performance indicators;
- Persons responsible for implementing the works;
- Post construction monitoring and record dissemination for a period of not less than 25 years. All ponds to be added to the Wales Great Crested Newt Monitoring Scheme, (see <https://www.cofnod.org.uk/LinkInfo?ID=7> with individuals/bodies being identified as being responsible for monitoring and reporting works. Methodology shall include annual abundance counts and Habitat Suitability Index (HSI) assessments. Each water body (including existing or proposed water attenuation features) shall be individually numbered on site;
- Submission of a biosecurity risk assessment.

The GCN Conservation Plan shall be carried out in accordance with the approved details.

Reason: To ensure that an approved GCN Conservation Plan is implemented, which protects the species affected by the development.

We advise that any submitted conservation plan references consideration of any planning condition or obligation requirements, including suggested 'Heads of Terms ' required for the purposes of informing the detail of any future Section 106 agreement.

This advice applies to the proposal in its present form. If the plans are changed in ways that may affect GCN on this site, you would need a revised ecology report that takes account of such changes. Please consult us again if any updated or revised ecology report concludes that the proposal is more likely to have an adverse impact on the GCN population and/or alters the detail or implementation of mitigation or compensation measures.

Please also note that any changes to plans between planning consent and the licence application may affect the outcome of a licence application.

NRW would refer the Planning Authority to the letter from the Welsh Government to Chief Planning Officer's dated 01 March 2018 which advises Local Planning Authorities to attach an informative regarding licence requirements to all consents and notices where European Protected Species are likely to be present on site.

- Bats

We concur with the conclusions and recommendations in regard to bats.

- Otter

We concur with the conclusions and recommendations in regard to otters.

## **Groundwater protection and land contamination**

We note that that the site was subject to previous industrial uses including a World War II munitions factory. We, therefore, request the following conditions are secured to any planning permission granted to ensure remediation of the site is completed:

Condition 2: No development shall commence until the following components of a scheme to deal with the risks associated with contamination at the site, has been submitted to and approved in writing by the Local Planning Authority.

1. A preliminary risk assessment which has identified:
  - all previous uses
  - potential contaminants associated with those uses
  - a conceptual model of the site indicating sources, pathways and receptors
  - potentially unacceptable risks arising from contamination at the site
2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The remediation strategy and its relevant components shall be carried out in accordance with the approved details.

Justification: To ensure the risks associated with contamination at the site have been fully considered prior to commencement of development as controlled waters are of high environmental sensitivity; and where necessary remediation measures and long-term monitoring are implemented to prevent unacceptable risks from contamination

Condition 3: Prior to the operation of the development a verification report demonstrating completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved in writing by the Local Planning Authority.

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include a long-term monitoring and maintenance plan for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan. The long-term monitoring and maintenance plan shall be carried out in accordance with the approved details.

Justification: To ensure the methods identified in the verification plan have been implemented and completed and the risk associated with the contamination at the site has been remediated prior to occupation or operation, to prevent both future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

Condition 4: If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be carried out as approved.

Justification: To ensure the risks associated with previously unsuspected contamination at the site are dealt with through a remediation strategy, to minimise the risk to both future users of the land and neighbouring land, and to ensure that the development can be carried out safely without unacceptable risks. A site investigation may not uncover all instances of contamination and this condition ensures that contamination encountered during the development phase is dealt with appropriately.

Condition 5: No infiltration of surface water drainage into the ground Site is permitted other than with the express written consent of the local planning authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approval details.

Justification: To prevent both new and existing development from contributing to or being put at unacceptable risk from or being adversely affected by unacceptable levels of water pollution.

Condition 6: No development shall commence until details of piling or any other foundation designs using penetrative methods sufficient to demonstrate that there is no unacceptable risk to groundwater have been submitted to and approved in writing by the Local Planning Authority. The piling/foundation designs shall be implemented in accordance with the approved details.

Justification: Piling/foundation details should be submitted to ensure there is no unacceptable risk to groundwater during construction and methods/design are agreed prior to the commencement of development or phase of development.

## **Protected Sites**

- Special Area of Conservation (SAC)

From the information provided, we consider that the proposals may affect the River Dee and Bala Lake SAC. The application is located within close proximity of River Clywedog which is hydrologically linked to the River Dee and Bala Lake SAC.

We have identified potential impact pathways to features of this site:

1. pollution

The above pathways may not result in an adverse effect if the following measures are adhered to/ implemented:

2. Developer adheres to the Construction and Environment Management Plan (CEMP) (Surface Water Management Plan Appendix D).

The report must be included in the 'approved list of plans / documents' condition within the decision notice should consent for the project be granted.

We note the application site is within the catchment of the River Dee and Bala Lake SAC. On the 21<sup>st</sup> January 2021, we published an evidence package outlining phosphate levels for all river SACs across Wales. As part of this package, we issued a [Planning Position Statement](#), in which we advised that any proposed development that might increase the amount of phosphate within a river SAC catchment could lead to damaging effects to the SAC. However, the application as submitted is unlikely to increase the amount or concentration of phosphate discharged directly or indirectly into the catchment.

No assessment of likely significant effect under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 has been undertaken by your authority or it has not been forwarded to NRW for consideration. Should you conclude that the proposed development is likely to have a significant effect on the European site, we look forward to being re-consulted. In the absence of this assessment, NRW cannot offer assurances that the proposals would not result in an adverse effect upon the SAC.

- Site of Special Scientific Interest (SSSI)

We consider the proposals have the potential to impact upon the Afon Dyfrdwy (River Dee) SSSI. Providing the impact pathways referenced above for the SAC are adequately addressed, we consider the features of the SSSI will also be adequately safeguarded

### **Other Matters**

Our comments above only relate specifically to matters included on our checklist, *Development Planning Advisory Service: Consultation Topics* (September 2018), which is published on our [website](#). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to our [website](#) for further details.

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully

Siôn M. Williams

Cynghorydd - Cynllunio Datblygu / Advisor - Development Planning

Cyfoeth Naturiol Cymru / Natural Resources Wales