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31/08/2021

Dear Sir/Madam,

PROPOSAL: ERECTION OF HOLIDAY ACCOMMODATION (IN RETROSPECT)

LOCATION: COXWOOD FARM COTTAGE, COX LANE, ROSSETT, WREXHAM

Thank you for consulting Cyfoeth Naturiol Cymru / Natural Resources Wales with additional information about the above, which we received on 12/08/2021.

We continue to 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 foul drainage in relation to protected sites and groundwater. If this information is not provided, we would object to this planning application. Further details are provided below.

Foul Drainage and Protected Sites

As stated in our previous response dated 16/07/2021 (our ref: CAS-158719-K7Y2), we note the application site is within the catchment of the River Dee and Bala Lake Special Area of Conservation (SAC). As you are aware, on the 21st January 2021, we published an evidence package outlining phosphorus 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 (or phosphorus) within a river SAC catchment could lead to damaging effects to the SAC. Therefore, such proposals should be screened through a Habitats Regulations Assessment (HRA), to determine whether they are likely to have a significant effect on the SAC. We have also issued [Planning Advice](#) (May 2021) which gives specific advice in respect of foul drainage arrangements for new developments.

In our earlier response dated 22/06/2021 (our ref: CAS-153002-N1J6), we noted that the application form states that the applicant is “not proposing to connect to existing” foul

drainage (which is understood to be a septic tank) and no further information had been provided in relation to the proposed method of foul drainage. On 09/07/2021 you provided details of an exemption registered at the property (for existing discharge to surface water of 5 cubic metres or less). It was also confirmed on 09/07/2021 that the applicant intends to connect to the existing septic tank (which is assumed to be the structure/feature that has been 'exempted') for the additional wastewater capacity that would be generated by the proposed holiday cottage.

As such, we refer you to our [Planning Advice](#) and advise you to seek further information from the applicant as identified in the bullet point list given in the section titled 'What does this mean for development proposals involving private sewage treatment systems' of that advice.

Provided this advice is followed and you are able to conclude that the development is not likely to have a significant effect on the SAC, we would have no objection to the proposal. However, should you conclude that the proposed development is likely to have a significant effect on the SAC, please consult us on your Appropriate Assessment under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Foul drainage and Groundwater contamination

We understand that the development is not served by the public foul sewer and that the application form indicates that foul drainage is to be discharged to a private sewerage system. In these circumstances Welsh Government Circular 008/2018 advises that a full and detailed consideration be given to the environmental criteria listed under paragraph 2.6 of the Circular, in order to justify the use of private sewerage.

On 12/08/2021 we were consulted on an updated drainage plan which appears to show the installation of two Klargeister Biodisc Package Treatment systems identified as the cross-hatched circular features. One of these makes reference to a recent NRW Exemption - our ref: NRW-WQE065814; dated 03/08/2021 and has been annotated by hand to show Klargest BioDisc Package Treatment Plant).

We have the following specific queries related to the proposed drainage design:

- The nature (rates and concentrations) of the two discharges in terms of phosphate concentrations from the two Klargeister treatment units must be provided; the northerly discharge is to a local water course and the southerly discharge is to a '*pit in field*'. The nature/design of the '*pit in field*' must also be provided including infiltration test results and pit dimensions and inverts.
- As per [Infiltration systems: groundwater risk assessments - GOV.UK \(www.gov.uk\)](#) (see below), a Groundwater Risk Assessment is required to determine if the discharges, which will occur within designated Phosphorus Sensitive SAC and Source Protection Zone areas, will pose a risk to groundwater/surface water.

Infiltration systems: location and design requirements

Follow British Standard BS6297:2007 (+ A1:2008) for your infiltration system and drainage field design and installation.

You can get further guidance on drainage and waste disposal in Part H of the Building Regulations (2002 edition).

Infiltration system and drainage field locations

To minimise the risk to groundwater, you need to make sure that the size of the drainage field is appropriate to the:

- rate of discharge
- the infiltration capacity of the ground

For example, this means it follows the design and location specifications in British Standard BS6297:2007 (+ A1:2008). If your infiltration system does meet the standard then you need to carry out your risk assessment using the Environment Agency risk assessment tool (Annex J5).

You must make sure that there's sufficient depth to the water table (at least 1.2m above the seasonally highest groundwater level) to make sure the effluent can attenuate. You should also consider how close receptors (like water supplies and surface watercourses) are.

The most important requirements to protect groundwater are that the discharge to a drainage field should not take place on land:

- within 10m of the nearest watercourse
- within 50m of a well, spring, borehole or other source of water intended for human consumption
- that's steeply sloping or waterlogged
- where there's less than 1.2m depth to water table below the invert of the drainage pipes
- where percolation rates fall outside an upper and lower range of values

- A review of the Geology of Britain viewer | British Geological Survey (BGS) shows an abstraction borehole registered to Coxwood Farm. It is not known if this borehole is still active, used, what the rates of abstraction are and what the resulting groundwater drawdown is. Although the borehole appears to be >50m from the nearest Klargeister Biodisc Treatment system, the BGS information describes groundwater conditions as being artesian. It is unclear at what depth artesian conditions are encountered; (12.71 feet or metres at the borehole location)? The information on artesian conditions is important in terms of the required excavation (invert) depths for the Klargeister Biodisc treatment systems and the 'pit in field' as artesian conditions, if encountered, will pose risks to the buildability and operational performance of the treatment systems and likely also to the wider environment.

The application does not, therefore, provide a sufficient basis for an assessment to be made of the risks of pollution to the water environment arising from the proposed development.

In particular, the submitted application fails to show that disposal of foul effluent from the septic tank would be effective at this location. The developer has not submitted any porosity/percolation testing results. Nor are there calculations for the specific size of any proposed soakaway(s) or the location of the discharge of foul effluent.

The application site is within a Source Protection Zone (SPZ) 3 for groundwater, within a phosphorus sensitive SAC catchment, immediately adjacent to a private water supply and there is a lack of information on local ground conditions and the design and operational performance of the proposed private sewerage system. Therefore, we advise that details of the location and size of the soakaway(s)/drainage field along with percolation test results, are submitted prior to the determination of the application.

The developer should ensure there is sufficient space to install the drainage field as set out in BS 6297:2007+A1:2008.

On receipt of the above information we will review our position and advise your Authority accordingly.

The Applicant should be aware that to operate a private sewerage system, they will need to apply for an environmental permit or register an exemption with us. Septic tanks and small sewage treatment works may be registered as exempt from the requirement to obtain an environmental permit if certain criteria are met. Please note, should a permit be required, further information may be required as part of that application and the Applicant is therefore advised to hold pre-application discussions with our Permitting Team on 0300 065 3000, at the earliest opportunity, to try to ensure that there is no conflict between any planning permission granted and the permit requirements. It is important to note that a grant of planning permission does not guarantee that a permit will be granted, should a proposal be deemed to be unacceptable (either because of environmental risk or because upon further investigation, a connection to mains sewer was feasible). The Applicant should ensure that they have all the required permissions, consents, permits and any other approvals in place prior to commencement of works on the site.

More information, including a step by step guide to registering and the relevant application forms are available on our [website](#). Where private sewage treatment/disposal facilities are utilised, they must be installed and maintained in accordance with British Standard 6297 and Approved Document H of the Building Regulations. We also refer the Applicant to Guidance for Pollution Prevention 4 on the [NetRegs website](#), which provides further information.

Protected Species

We note that there is no information about protected species with the application and, therefore, are assuming that your Authority has screened the application and concluded that there is not a reasonable likelihood of protected species being present.

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.

Yours faithfully,

Tristan Williams

Cynghorydd - Cynllunio Datblygu / Advisor - Development Planning
Cyfoeth Naturiol Cymru / Natural Resources Wales