

**APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN
SITE**

CONSERVATION (NATURAL HABITATS & C.) REGULATIONS, 2010



PART A: The Proposal

1. Type of permission: Full	2. Consents and ROMP references: Case No: P/2021/0077	3. National Grid reference: SJ 22818 35980
Map of Application site with Permission reference(s) Map Attached Yes/ <u>No</u>	4. Brief description of consents and options Cae Mor Farm, Llwyn Mawr, LL20 7BE Erection Of An Organic Free Range Egg Production Unit And All Associated Works.	
6. European site name(s):	RIVER DEE AND BALA LAKE	
7. List of interest features: H3260. Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation; Rivers with floating vegetation often dominated by water-crowfoot S1095. <i>Petromyzon marinus</i> ; Sea lamprey S1096. <i>Lampetra planeri</i> ; Brook lamprey S1099. <i>Lampetra fluviatilis</i> ; River lamprey S1106. <i>Salmo salar</i> ; Atlantic salmon S1163. <i>Cottus gobio</i> ; Bullhead S1355. <i>Lutra lutra</i> ; Otter S1831. <i>Luronium natans</i> ; Floating water-plantain		

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CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART B: Identification of effects being considered and relevant features affected			
Significant effect being considered (attribute affected)	Affected qualifying feature(s)	Favourable condition target(s) for relevant feature(s) based on conservation objectives set for SPA/ Ramsar	Contribution of attribute(s) to site integrity (ecological structure and functioning of site)

1. Water quality, increase in Phosphates.	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation Sea lamprey Brook lamprey River lamprey Atlantic salmon Bullhead Otter	<i>Taken from Core Management Plan Including conservation objectives for River Dee and Bala Lake version 3 September 2022</i> Water quality Lower limit – Chemical GQA class: A Biological GQA class: A Phosphate standards at site and downstream <table><tr><th>Water Body ID</th><th>Water Body Name</th><th>SAC Management Unit</th><th>Phosphorus standard * (µg l⁻¹)</th><th>Reason for phosphorus standard**</th><th>CSM Alt type</th><th>CSM Alk type</th><th>River size</th></tr><tr><td>GB111067051910</td><td>Ceiriog - confluence Dee to Teirw</td><td>1786</td><td>25</td><td>CSM (max allowable)</td><td>high Alt >80m</td><td>high Alk >50mg/l</td><td>river</td></tr><tr><td>GB111067057080</td><td>Dee - Chester Weir to Ceiriog</td><td>7852</td><td>50</td><td>CSM (max allowable)</td><td>low Alt <80m</td><td>high Alk >50mg/l</td><td>river</td></tr></table> Updated reactive phosphate target in 2022 25 down from 28. Ammonia Ceiriog - confluence Dee to Teirw - 0.25 Total Ammonia (90%ile, mg l⁻¹) Dee – Chester Weir to Ceiriog - 0.25 Total Ammonia (90%ile, mg l⁻¹)	Water Body ID	Water Body Name	SAC Management Unit	Phosphorus standard * (µg l ⁻¹)	Reason for phosphorus standard**	CSM Alt type	CSM Alk type	River size	GB111067051910	Ceiriog - confluence Dee to Teirw	1786	25	CSM (max allowable)	high Alt >80m	high Alk >50mg/l	river	GB111067057080	Dee - Chester Weir to Ceiriog	7852	50	CSM (max allowable)	low Alt <80m	high Alk >50mg/l	river	Water quality is essential to maintain populations of all the SAC features of interest.
Water Body ID	Water Body Name	SAC Management Unit	Phosphorus standard * (µg l ⁻¹)	Reason for phosphorus standard**	CSM Alt type	CSM Alk type	River size																				
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PART C: Assessment				
Significant effect being considered (attribute affected)	Adverse Effect of proposal alone on attribute and/or feature and in relation to conservation objective for the feature.	Adverse Effect of proposal in combination with other plans or projects, on attribute and /or feature	Adverse effect on the integrity of the site? : Long term/ short term Yes/ Uncertain No	What mitigation could prevent an adverse effect on the integrity of the site?

1.	Increase in phosphate levels in the River Dee SAC	Elevated nutrient concentrations increase the risk of adverse ecological impacts such as algal blooms, loss of nutrient-sensitive species and deoxygenation of river substrates. Impacts all areas of riverine ecology and features of interest over the long-term.	Other developments that have potential to generate phosphorus within the catchment are on hold until a phosphate strategy has been completed for the borough and permit reviews for the water treatment works have been completed. No extant, in combination projects have been identified within the Ceiriog catchment. Downstream, on the main River Dee a review of approved applications and plans has taken place a total of 105 residential units (all small) have been identified as granted permissions that could potentially commence without the need to discharge drainage conditions. Assuming occupancy rates of 2.3 persons per dwelling the Carmarthenshire Calculator estimates water use at 28980 L/yr and therefore 84.68 kg TP/yr.	Short term – possible Long term - Certain	*Certainty that all waste products are removed from the catchment and cannot be returned to the River Dee SAC catchment or any other SAC river catchment. *Ranging area not on sloped ground, large vegetated buffers to watercourses to ensure phosphates in manure is not transported via surface water or ground water to the Ceiriog. *Implementation of a River Dee SAC Phosphorus Mitigation strategy (in early stage of production).
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2.	Aerial emissions (ammonia).	Toxicity to aquatic life and eutrophication resulting in depleted oxygen levels. Impacts all areas of riverine ecology and features of interest over the long-term.	No in combination aerial emissions identified.	Short term – possible Long term – possible	
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PART D: Wrexham County Borough Council's Conclusion

CAN IT BE ASCERTAINED THAT THE PLAN OR PROJECT WILL NOT ADVERSELY AFFECT THE INTEGRITY OF THE EUROPEAN SITE(S)?

Aerial Emissions

Agricultural units have the potential to impact protected sites through aerial emissions (ammonia). NRW assesses the air quality impact a unit may have on Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites and Sites of Special Scientific Interest (SSSIs) within a screening distance of 5km of the unit. NRW have considered the detailed atmospheric modelling report submitted in support of the proposal ('A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Proposed Free Range Egg Laying Chicken Houses at Cae Mor, near Llwynmawr in Denbighshire.' by AS Modelling & Data Ltd. dated 13th March 2021. Table 5a indicates that the poultry unit will exceed the 1% process contribution for Afon Dyfrdwy SAC/SSSI.

ACCORDING TO THE SUBMITTED MODELLING REPORT, THE BACKGROUND AMMONIA CONCENTRATION (ANNUAL MEAN) IN THE AREA AROUND THE POULTRY HOUSES AT CAE MOR AND THE WILDLIFE SITES IS 1.45 MG-NH₃/M³ . (APIS, MARCH 2021). IT SHOULD BE NOTED THAT THE BACKGROUND AMMONIA CONCENTRATION HAS NOW BEEN UPDATED ON THE APIS WEBSITE AND THE FIGURE IS NOW 1.72 MG-NH₃/M³. NRW HAVE CONCLUDED THAT THE PROCESS CONTRIBUTION AND BACKGROUND WILL NOT EXCEED THE CRITICAL LEVEL AND THEREFORE RAISE NO CONCERNS ABOUT THE PREDICTED EMISSIONS 'ALONE'. THE LPA HAVE FOUND NO RELEVANT PROPOSALS TO ASSESS THE APPLICATION IN COMBINATION WITH OTHERS.

Phosphate Pollution

The applicant has submitted a Manure Management Plan which states "No manure from the poultry units (existing and proposed) will be spread on site as the farm will be using all of its land for ranging areas. All manure will be exported off site by Gamber Logistics Ltd". Gamber Logistics submitted a letter dated, 22/03/2021, which confirms their willingness to purchase poultry manure from the Cae Mor site and to distribute it for anaerobic digestion (AD) feedstock or fertiliser use.

The LPA remain unconvinced that the use of a S106 agreement would provide sufficient legal control over that third party that neither the product or derivatives of the manure will not be used in either the Dee or other SAC river catchments such as the Wye. We are also concerned that the regulatory regimes covering spreading of manures and resultant digestate to land, are adequate in preventing discharge of phosphorus to the river environment.

We also have concerns regarding contingencies if the product reduces in value or Gamber Logistics go out of business.

In Combination Effects

No in combination projects have been identified

Conclusion

It is the conclusion of the LPA that it has not been demonstrated to a high enough threshold that waste products from the site can be adequately controlled to ensure that they do not cause direct pollution to watercourses of international significance.

Name of Assessing Officer:

Emma Broad

Name of Supervising Officer:

Gwyn Humphreys

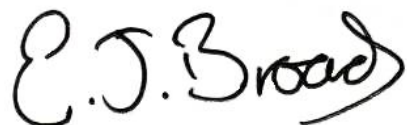
Job Title:

Ecology and Biodiversity Officer

Job Title:

Senior Planning Officer

Signed:



Date:

09/06/2023

Signed:



Date:

09/06/2023

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PART E: Consultation with NRW on Part D

2. Natural Resource Wales comment on conclusion:

Name of NRW Officer:

3. Job Title: Regional Species & Biodiversity Officer

Signed:

4. Date: