

Nantgwynedd Uchaf
Llwynmawr
Llangollen
LL20 7BD

The Planning Inspectorate
Crown Buildings
Cathays Park
Cardiff
CF10 3NQ

Dear Sir or Madam,

We write in reference to planning application appeal case Case APP/H6955/A/16/3154472 for a free-range egg production facility at CaeMor LL20 7BE. I apologise that I have not sent this information until now: this is because we have been waiting for Natural Resources Wales (NRW) to provide their view in relation to the ranging area. They had not considered the ranging area as part of the application until this point. This letter was received on Friday. I will attach it to the email that I send. As NRW is another arm of Government I leave it to you to be frustrated with their response times!

This letter relates to discussions that took place at the planning appeal hearing on the 14th of December in the Wrexham Memorial Hall. At the appeal the Planning Inspectorate case officer was minded to allow the addition of an extra planning control in the event that the development went ahead, but only if the respondents could show that such a planning control was **necessary**. The planning control would relate to potential pollution to local Private water supplies near to the development. The case officer felt that he did not have enough information to show that this was the case at the hearing. The appeal was adjourned until the site inspection, on the 10th of January, so that such information could be gathered and presented if necessary.

Nitrates and Public Health¹

Nitrate in drinking water can cause methaemoglobinaemia (blue baby syndrome) in young children. This is a potentially fatal illness where nitrate is converted to nitrite in the gut and interferes with the absorption of oxygen by the blood. The first legal standard for nitrate was set in 1980 and the current drinking water standard is 50 mg/l. This EU standard is based on the World Health Organisation's guideline value for drinking water, which is also 50 mg/l. This level is intended as a safeguard against methaemoglobinaemia.

There are some published studies showing that extremely high doses of nitrate can cause cancer in laboratory animals. A number of other epidemiological studies have investigated the theory of a possible association between nitrate in tap water and the incidence of cancer.

Since the early 1990's water companies have been required to take remedial action whenever a risk of not meeting the nitrate standard is identified from routine monitoring of river and ground water. This action has consisted of blending higher nitrate waters with low nitrate water and where necessary the installation of specialised water treatment.

Nitrates and the Law

The Water Framework Directive (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy) is a European Union

¹ Source: <http://dwi.defra.gov.uk/consumers/advice-leaflets/nitrate.pdf>

directive which commits European Union member states to achieve good qualitative and quantitative status of all water bodies by 2015. It is a framework in the sense that it prescribes steps to reach the common goal rather than adopting the more traditional limit value approach.

The Directive aims for 'good status' for all ground and surface waters (rivers, lakes, transitional waters, and coastal waters) in the EU. The ecological and chemical status of surface waters are assessed according to the following criteria:

- Biological quality (fish, benthic invertebrates, aquatic flora)
- Hydromorphological quality such as river bank structure, river continuity or substrate of the river bed
- Physical-chemical quality such as temperature, oxygenation and nutrient conditions
- Chemical quality that refers to environmental quality standards for river basin specific pollutants. These standards specify maximum concentrations for specific water pollutants.² If even one such concentration is exceeded, the water body will not be classed as having a "good ecological status".

The Directive's aim for 'good status' for all water bodies will not be achieved, with 47% of EU water bodies³ covered by the Directive failing to achieve the aim.

The responsibility for fulfilling the requirements of the Water Framework Directive in relation to surface and ground waters rests with Natural resources Wales.

The responsibility for fulfilling the requirements of the Water Framework Directive in relation to drinking water rests with the drinking water inspectorate for public supplies and with local authorities for private supplies.

Legal Precedent

The current law relating to Nitrates and drinking water is relatively new: 2010 No. 994 (W.99) WATER, ENGLAND AND WALES: The Water Supply (Water Quality) Regulations 2010⁴. The vast majority of civil cases referring to this act take the form of a settlement rather than court action. Both of these things mean that there is, as yet, no case law relating to poultry farms and Nitrate pollution of nearby private water supplies. The only case law so far relating to Nitrates and agriculture, testing the Water Framework Directive, is Case C-293/97: The Queen-v-Secretary of State for the Environment, Minister of Agriculture, Fisheries and Food, ex parte: H. A. Standley and Others⁵. It relates to the extent to which agricultural owners should be held to account for pollution caused by their agricultural practices under the "polluter pays" principle according to the principle of proportionality.

The case for a "necessary" Planning Control

I have shown above that Nitrates are injurious to health and that there is a legal basis for their control. Although I have not shown that there is a legal "case law" precedent yet. To show that the Planning control is necessary therefore requires me to show a reasonable case on the basis of scientific research results, official guidance and the law specifically with regard to this specific application.

The intensification of the land use will increase significantly as a result of the development. The Nitrogen load on the ground as a result of the change from sheep grazing to large-scale free range egg production will be at

² The limit for nitrates as part of the directive is set at 50mg per litre and 1mg per litre for nitrites.

³ 2012 WFD review by the European Commission <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0670&from=EN>

⁴ <http://www.dwi.gov.uk/stakeholders/legislation/wsr2010wales.pdf>

⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A61997CJ0293>

least 300% more.⁶ ***This shows a very significant new local source of increased nitrate pollution as a result of the development.***

The water supplies (**receptors**) for Briwnant, Graig-yr-Oryn, Caemor and ours (Nantgwryd Uchaf) are all directly downhill of the ranging area. They either very close to the ranging area (Briwnant, Graig-yr-Oryn, Caemor) or within 350m (Nantgwryd Uchaf)⁷. The Geowater report asserts “*Manure on scratching land: unlikely to significantly exceed risks from other livestock use of this land*”. This is not correct. I have already shown that the nitrogen deposition will triple: a tripling is significant: the risks associated with intensive poultry farming are therefore far greater than for sheep.

Defra documents state: “*this paper established agriculture as a major source of nitrate in surface waters and groundwaters in England. Therefore, it can be expected that nitrate pollution is likely to occur in those parts of the country which experience high nitrate concentrations in water draining from agricultural land*”.⁸ “*Nitrate leaching also tends to be greater in areas characterised by large numbers of livestock – whether in grassland systems, or as pigs and poultry. This results from an inefficient use of the nitrogen in livestock manures, as the supply of mineral N from the applied material may exceed the demands of growing plants over time or space*”⁹.

*The effect of changes in nitrate losses from agriculture on nitrate concentrations measured at the sampling point depends on pathway (i.e. whether the water travels slowly to groundwaters, or travels rapidly to surface water systems), as this influences residence time and the degree of dilution and attenuation of the nitrate signal*¹⁰.

The Geowater report has confirmed that all of the drinking water springs concerned are likely to be derived from “*shallow, short-residence groundwater*”. The site is characterised by an unusually large number of springs and watercourse sources¹¹: there are 6 within the ranging area. This is because the land has a relatively high water table. A spring is where the water table meets the surface. Given the short shallow, residence time the nitrate signal will be less attenuated. The high water table reduces the opportunity for dilution and degradation of the Nitrogen being deposited. In the cases of Briwnant, Graig-yr-Oryn and Caemor: the ranging area extends to within 20 metres of the spring sources. **In all cases, (including Nantgwryd Uchaf) there is a pathway for nitrate pollution. I have shown that this pathway is stronger than could be / has been supposed. ALL CONSTITUENT ELEMENTS EXIST FOR DRINKING WATER TO BE UNDULY AFFECTED.**

The GeoWater report conclusion states that “*the risks are risks are unlikely to be significant*”. Another equivalent way of writing this is “*the risks could be significant*”. The Water Framework Directive says that the **Precautionary Principle**¹² should be applied and that **preventative action** should take place.

⁶ Assumes current stocking rate of 6 ewes per acre Apr-Sep, 3 ewes per acres Oct-Feb: 100% occupancy. Assumes 20% of chicken manure deposited outdoors. Nitrogen deposition calculations from tables 9 & 12 annex 6 of: Guidance on complying with the rules for Nitrate Vulnerable Zones in England for 2013 to 2016 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/432141/pb14050-nvz-guidance.pdf The calculations for the poultry rates are confirmed by the Scail report.

⁷ GeoWater Report 8th November 2016.

⁸ Section 4 ADAS report to Defra – supporting paper D1 for the consultation on implementation of the Nitrates Directive in England July 2007

⁹ Section 4.2 ADAS report to Defra – supporting paper D1 for the consultation on implementation of the Nitrates Directive in England July 2007

¹⁰ Section 4.3 ADAS report to Defra – supporting paper D1 for the consultation on implementation of the Nitrates Directive in England July 2007

<http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/quality/water/waterquality/diffuse/nitrate/documents/consultation-supportdocs/d1-nitrateswater.pdf>

¹¹ GeoWater Report 8th November 2016.

¹² Item 11 from preamble of the Water Framework Directive 2000/60/EC 23rd Oct 2000.

As a Case Officer, you have the opportunity to exercise your duties; to take preventative action; apply the precautionary principle and allow a prudent condition on the development. In this respect, the condition is necessary.

Yours faithfully

Edward and Helen Rayner



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Ein cyf/Our ref: CAS-27466-S9F1
Eich cyf/Your ref: 3154472

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Edd Rayner
Nantgwyd Uchaf
Llwynmawr
Pontfadog
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Date: 6th January 2017

Dear Mr Rayner,

**Erection of free range egg production unit (16,000 birds) including silos and associated works (including ground level alterations and alterations to existing vehicular access)
Cae Mor, Llwyn Mawr, Pontfadog, Llangollen, Wrexham, LL20 7BE**

Thank you for your email dated 18th December 2016 concerning the above planning appeal.

Your concerns relate to the proposed development's potential impact upon private water supplies downstream of the proposal. The responsibility for protecting private water supplies lies within the remit of the Local Authority.

Further to your email, we have further reviewed the proposed development's potential impact upon surface water quality, namely local springs and watercourses. There is a need to ensure that the development will not have a detrimental impact on water quality.

We are satisfied that the egg production unit building itself, along with the suitable mitigation measures included as part of the planning application will not have a detrimental impact on local water quality.

With regards to the ranging area of the birds, we are not aware that the application documentation includes a plan identifying the ranging area, although we note that page 6 of the Design and Access Statement supporting the planning application states that "the land surrounding the laying house will be divided into a series of temporary paddocks".

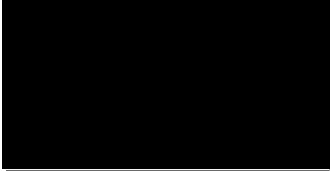
The site owner during operation of the unit will need to be in compliance with the advice included in the Code of Good Agricultural Practice. The need to operate in a manner that is in compliance with this guidance should ensure that the development will not have a detrimental impact on water quality.

The Good Practice advice includes a requirement to fence off surface waters to prevent livestock from fouling the water, damaging banks and getting into the water. A copy of the guidance can be obtained from the following website.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/268691/pb13558-cogap-131223.pdf

We hope the above clarifies our position, if you have any further queries, please contact me on the details overleaf.

Yn gywir / Yours' faithfully,



Mr. GARETH THOMAS

Cynghorydd Cynllunio Datblygiad / Development Planning Adviser

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Deialu uniongyrchol/Direct dial: ([REDACTED])