

Extracts taken from Planning Statement, May 2008

The Nitrates Directive

5.7 In section 3 above, a brief review of the context of the application is given. The provision of the Nitrates Directive and its incorporation into UK legislation is a key driving force behind the proposed development and the subsequent reviews by both the consortium of poultry producers and various Government reports have led to determination that the proposed solution of using poultry bedding as a fuel in an electricity generating power plant represents the optimum solution for dealing with the problem of disposing of this material in lieu of land spread.

5.8 The Directive focuses on the undesirable effects of nutrient enrichment of waters, known as eutrophication. This is defined in the Directive as:

“The enrichment of water by nitrogen compounds, causing an accelerated growth of algae and high forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned”.

Concerns about water quality have been reinforced in the EU Water Framework Directive (2000/60/EEC) which requires by 2015 that all water bodies should be at least of good ecological status.

5.9 A DoE-DARD Scientific Working Group was established in 2002 to report on the “Environmental Aspects of the Nitrates Directive in Northern Ireland”. The Scientific Working Group summarised the problems of effects on water quality associated with eutrophication as:

- Health risks from contamination of drinking water supplies and recreational waters by toxic algae and algal scums
- Added costs in removal of algae from water intakes and water treatment facilities

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- Loss of habitats leading to loss of species bio-diversity
- Loss of fisheries
- Limits on use or added costs for industry and agriculture, and
- Undesirable aesthetic impacts such as odours, loss of transparency and clogging by weeds leading to loss of amenity value.

5.10 As referred to in the supporting documents to the Ecology section of the Environmental Statement, Lough Neagh has been identified as hyper-eutrophic – it is one of the most eutrophied lakes in the world. The Lough is also one of the most important sources of water for human consumption.

5.11 The DoE-DARD Working Group identified that nitrates enrichment is a problem of moderate scale in Northern Ireland but that phosphorus enrichment, also resulting from fertiliser application and sewage treatment plants, is significantly more serious.

5.12 Nitrate losses – that is excessive nitrates which are not taken up in plant growth – are recognised as being largely via leaching and therefore there may be considerable time lags before reaching water courses and groundwater. The effects of reducing excessive nitrates loading on land will, therefore, take time to be realised. By contrast, surface loss of phosphorus is the dominant means by which this nutrient enricher is released and thus the effects of it on the water environment are more immediate.

5.13 The Nitrates Directive does not regulate phosphorus. However, in recognition of the problem resulting from excess phosphorus application, new regulations were introduced on 1 January, 2007 – Phosphorus (Use in Agriculture) Regulations (Northern Ireland), 2006 – to control the level of fertiliser application. The new Regulations note that the available phosphate content of organic manures such as broiler/turkey dry manure (60% dry matter) is assessed at 25kg P₂O₅ per tonne. The Regulations' aim is to prevent water

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pollution and there is a legal duty upon the person charged with the management of an agricultural holding not to cause directly or indirectly the entry of fertiliser into water or groundwater.

- 5.14 Control of phosphorus losses must be achieved if there are to be improvements in water quality. The requirement is to reduce phosphorus application to no more than +10kg P/ha/year by 1 January 2010, reducing to a maximum of +6kg P/ha/year by 1 January 2012. This also requires a long close period for the application of fertilisers – phosphorus is primarily lost by run-off, not leaching, and take-up by crops/grass is limited during the winter months – in addition to the reductions already made in the input of phosphorus in feed on farms. The close period in Northern Ireland is from 1 October to 31 January and storage of excessive manures, including poultry bedding, is required for that period.