

Lesley Griffiths AC/AM
Ysgrifennydd y Cabinet dros yr Amgylchedd a Materion Gwledig
Cabinet Secretary for Environment and Rural Affairs




Llywodraeth Cymru
Welsh Government

Eich cyf/Your ref P-05-733
Ein cyf/Our ref LG/00598/17

Mike Hedges AM
Chair - Petitions Committee
National Assembly for Wales
Ty Hywel
Cardiff Bay
Cardiff
CF99 1NA

government.committee.business@wales.gsi.gov.uk

 April 2017

Dear Mike

Thank you for your letter of 21 March, regarding further correspondence received in relation to petition P-05-733.

The Cleddau catchment was recommended for designation by Natural Resources Wales based on the best available evidence. The proposed designation is a human health issue, irrespective of the type of designation. Eutrophication is the excessive development of certain types of algae which disturbs aquatic ecosystems and becomes a threat to human health. Algal toxins in marine ecosystems can accumulate in shellfish and more generally in seafood, reaching dangerous levels.

There are a number of algal species which can produce toxins harmful to human health and represent a risk to seafood consumers. They can cause various effects such as Diarrhoeic Shellfish Poisoning which leads to gastrointestinal symptoms and Paralytic Shellfish Poisoning which leads to tingling, numbness, shaking, slurring of speech, burning of the stomach and fever for which there is no antidote. Amnesic Shellfish Poisoning symptoms include mental confusion and loss of memory, disorientation and sometimes coma. Neurotoxic Shellfish Poisoning leads to muscular paralysis, state of shock and sometimes death. Venerupin Shellfish Poisoning leads to gastrointestinal, nervous, haemorrhagic, hepatic symptoms and in extreme cases delirium and hepatic coma.

Bae Caerdydd • Cardiff Bay
Caerdydd • Cardiff
CF99 1NA

Canolfan Cyswllt Cyntaf / First Point of Contact Centre:
0300 0604400
Gohebiaeth.Lesley.Griffiths@llyw.cymru
Correspondence.Lesley.Griffiths@gov.wales

Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

The presence of bacteria potentially harmful to human health such as *Escherichia coli*, *Salmonella* spp or *Vibrio Cholerae* can represent a threat to people bathing in water. Under normal conditions, these bacteria do not survive very long in seawater. The major reasons for this is a lack of nutrients in seawater, the exposure of bacteria to UV rays which have a bactericidal effect, and, finally, the osmolarity of sea water which is much higher than that of bacteria. During algal blooms, the conditions are reversed, food becomes abundant, light is diminished and some algae may also release chemicals that produce osmo-protection for the bacteria.

While reliance on manufactured fertilisers and livestock numbers have reduced since the 1980's this does not reflect other factors, including how agricultural practices have also led to a reduction of permanent grassland and other "buffer" areas such as ditches, hedges and wetlands, a situation which favours erosion, run-off and drainage of nutrients to water bodies. It should not be concluded measures are not needed now as fertiliser use is reduced compared to the 1980's. Prior to the 1980's, fertiliser use and stocking levels increased continuously for over 100 years to unsustainable levels. Due to the complexity of catchment functioning and historical losses of nitrates to the environment, concentrations of nitrate in certain aquifers are unlikely to recover for many years. Nitrate levels in carboniferous limestone aquifers in North East Wales, for example, are not expected to reach a peak until around 2050. It is for this reason we need to take action now for the benefit of future generations.

The economic, environmental, social and cultural well-being of future generations, and in particular rural communities, is dependant upon achieving the objectives of the Nitrates Directive, the protection of water quality by preventing nitrates from agricultural sources polluting ground and surface waters. Wales will shortly be leaving the European Union following which the Common Agricultural Policy and related financial payments to the agricultural industry will no longer apply. It is disappointing, at a time when I am considering the development of an alternative agricultural support scheme, the petitioner is critical of the tourism sector. It should be recognised that rural communities and agricultural businesses are highly reliant on the economic benefits of tourism, which support the rural economy.

Over the last three years, there have been 248 agricultural point source pollution incidents in Wales, an average of 1.6 per week, including 14 category 1 incidents. A Category 1 incident is an event which has a major, serious, persistent and/or extensive impact on the environment. The latest Category 1 slurry pollution incident occurred on 21 February on a tributary of the Gwili, near Llanpumsaint, Carmarthenshire. Nearly the entire length of the unnamed tributary (approximately 2.5km) was affected with hundreds of fish carcasses counted. The number of carcasses is only an indication of the significance of the incident and the total fish kill will be far greater. Invertebrate populations will also have been significantly effected, with associated impacts upon the capacity for fish to return and bird life.

In December an even more significant Category 1 incident occurred on the Teifi. The Teifi, designated a Special Area of Conservation due to the presence of Annex II species including bullhead, lamprey and Atlantic salmon, has benefitted from an international reputation as one of the top producing rivers for salmon and sea trout in the U.K. The Gwili is also a popular angling destination. Such incidents risk damage to the rural economy. Stock levels have been clearly identified as being in a very poor condition in 21 of the 23 principle salmon rivers in Wales, potentially leading to an outright ban on the killing of salmon. The value of recreational freshwater angling tourism to Wales was estimated to be worth well over £100m to the Welsh economy, £32 million in rural household incomes.

Natural Resources Wales are currently investigating another 8 agricultural pollution incidents reported over the period 16-20 March. Cemaes Bay, Anglesey recently failed to meet the required standards under the Bathing Water Directive and advisory signs will be posted in the Bay to notify bathers. Livestock bacteria and excrement have been linked to the pollution and Councillors have raised their fears that tourism numbers will dip unless the water quality drastically improves. The implications of these events are clear and I am greatly concerned about their frequency and the impact they will have on rural communities.

If we are to learn from the experiences of others, there are a number of examples which demonstrate how the implementation of the Nitrates Directive is compatible with our well-being goals. In 1999 the Scottish Government implemented a temporary ban on the fishing for scallops and queen scallops in specific areas, necessitated by high levels of Amnesic Shellfish Poisoning caused by algal blooms. The reported economic loss was £800,000 and resulted in job losses and significant loss of income within the affected rural communities.

Over the last 30 years the environmental quality of the Black Sea has deteriorated due to the eutrophication of the water, resulting in alarming algal overgrowth. Following the break up of the ecosystem between the 1970s and the 1980s, fish deaths were estimated at five million tons between 1973 and 1990, representing US\$ 2 billion at market cost. A further consequence is that tourists have stopped visiting the coasts of the Black Sea leading to losses for the tourist industry. A study performed in the framework of the Black Sea Environmental Programme estimated in 1995 that the annual economic loss due to tourist disaffection in this region was close to US\$ 360 million for a 10% decrease in the environmental quality.

The Environment (Wales) Act 2016 provides the Welsh Ministers with powers to suspend statutory requirements for experimental schemes upon application from Natural Resources Wales. However, under the Government of Wales Act 2006 the Welsh Ministers have no power to make subordinate legislation or to do any other act incompatible with EU law. In this respect, it is not possible to experiment with alternatives to the Nitrate Vulnerable Zone Action Programme which are incompatible with the Nitrates Directive, while we remain within the European Union. Approximately 97.6% of Wales is not designated and voluntary measures could be applied in these areas with the aim of reducing the risk of future designation. Unfortunately studies suggest that over two thirds of farms are not yet compliant with slurry storage regulations which have been in place since 1991, which suggests that voluntary measures are unlikely to be successful. Insufficient storage means slurry has to be spread on the land irrespective of weather conditions and leads to pollution of watercourses.

The Nitrates Directive requires certain measures to be introduced by member states but there is flexibility as to how each member state implements these measures. There appears to be a misconception that the measures are dictated by the European Union and are not applicable to Wales. However, the implementation of the Nitrates Directive in Wales, which differs from that of other member states, is supported by evidence established as part of the initial transposition of the Nitrates Directive and subsequent reviews. The evidence suggests that the Action Programme measures will be effective in reducing agricultural pollution, in particular the loss of nitrates to water. The extent to which the Action Programme measures are expected to reduce levels of nitrate pollution has been determined by previous regulatory impact assessments. A regulatory impact assessment is being developed as part of the current review.

Until we formally exit the EU, we are obliged to comply with all European law. I am interested to hear people's views if they feel alternative approaches to those included in the consultation can achieve the same or better outcome whilst satisfying the requirements of the Directive. My officials are exploring the opportunities available to us and recently met with a major UK dairy to discuss their proposals for an alternative approach. I am highly supportive of such proposals and of industry lead initiatives. My officials will continue to work with the dairy to further explore possible options.

Regards
Lesley

Lesley Griffiths AC/AM

Ysgrifennydd y Cabinet dros yr Amgylchedd a Materion Gwledig
Cabinet Secretary for Environment and Rural Affairs