



**PROPOSAL FOR VARIATION ON THE
DONEGAL
COUNTY DEVELOPMENT PLAN**

Presentation to Councillors of Donegal

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Introduction

I have been coming to Donegal for many years and have a deep appreciation of its environment, heritage and people. It is a privilege for me to address the elected members of the local council, and I wish to convey my appreciation to the Council Executive, and the members, for affording me the opportunity to make this presentation on behalf of the Glenties Windfarm Information Group.

The purpose of this presentation is to set out the reasoning and context of why, in our opinion, Donegal County Council and its elected members should consider minor amendments to a variation of the County Development Plan 2012-2018.

The main substantive issues to be considered here are founded on the recent decision of An Bord Pleanála and the report of their Chief Inspector, Mr. Kevin Moore, to refuse permission for a wind farm at Straboy, Glenties, County Donegal.

Also for consideration is the decision by An Bord Pleanála, in August 2010, to refuse permission for a 15 turbine development at Altnagapple, Ardara, Co. Donegal.

Our proposal regarding this variation will identify the current conflicts contained in the Plan, regarding the development of wind energy projects. Currently the zoning, 'open to consideration', applies to over 2,300 town lands in the County.

This is at odds with the acceptable understanding of the requirements of a number of European Directives relating to the environment. Conflicts arise in relation to rulings of the European Court in respect of environmental impacts, and the need to protect the environment in accordance with the Directives issued on the environment.

Of the 2000 MW of wind energy currently installed on the National Grid in Ireland, 260 MW comes from a total of 28 wind farms located in Co Donegal. In addition there is currently 154 MW of contracted wind farms in the county, which are targeted for grid connection over the next few years.

The Planning and Development Act (as amended) 2010, requires a Strategic Environmental Assessment pursuant to the EU Habitat's Directive, and this process requires that such consideration be included in the drafting of the County Development Plan.

The current Plan fails to meet these objectives, as noted in the Manager's report on the Draft plan dated May 2nd 2012, which recorded the concerns of the Department of Environment in relation to **Material Alterations 52, 59, 76, 77 and 83**, identifying these designations as not evidence based. The review of the County Development Plan runs in parallel with both the SEA Directive and the Habitat's Directive.

1. Statutory Basis for Proposal

Under Section 13 of the Planning and Development Act 2000, provision is made for a material variation of the County Development Plan.

2. The SEA Directive

Provides for assessment of certain plans and programmes on the Environment. Article 174 of the Treaty provides that Community Policy on the Environment is to contribute to the preservation, protection and improvement of the quality of the environment.

The Strategic Environmental Directive 2001/42/EC provides for the assessment of the affects of certain plans and programmes on the environment, and places responsibility towards sustainable development, and the protection of the environment, as very clearly the responsibility of Member States. **Article 174 of the Treaty** provides that the Community Policy on the Environment is to contribute to the preservation, protection and improvement of the quality of the environment. The protection of human health and the prudent, and rational, utilization of natural resources is to be based on the Precautionary Principle.

In May 2012, at the end of the lifetime of the previous County Development Plan, Donegal County Council brought forward amendments which saw over 2,300 town lands in the County zoned as open to consideration for wind farm development, notwithstanding the concerns expressed by the Department of Environment that this was not evidence based and urging the council to review this policy objective. The removal of previous setback distances of 500m from residential dwellings and 150m from rivers and streams, failed to take account of the obligations of the authority to protect residential amenity and the receiving environment. While having regard to government policy in respect of renewable energy in the county, Donegal County Council are obliged under the various EU Directives, including the **Habitat's Directive 92/43/EEC; The Bird's Directive 79/409/EEC; The Environmental Directive 85/337/EEC; The Water Framework Directive 2000/60/EC and the Flood Directive 2007/60/EC.**

Under the terms of the **SEA Directive 2001/42/EC**, the County Development Plan is required to be subject to assessment under the following criteria; biodiversity, population and human health, flora and fauna, soil and water, air and climate, material assets, cultural heritage, landscape and the interrelationship between the above. The environmental report in preparation of the Plan must examine the significant environmental pressures that may affect each of the environmental topics and the current baseline state of the environment.

3. Policy Context

The various Directives, as referred to, must form part of the consideration of all zoning

decisions, with the obligation on the authority to protect the receiving environment and residential amenity, while having regard to Government Policy in respect of renewable energy in the County. The European Court of Justice in case C-258/11 interpreted the meaning of the Habitat's Directive

“(a) conservation means a series of measures required to maintain and restore the natural habitats and the populations of species of wild flora and fauna at a favourable status as defined in (e) and (i)

(d) priority natural habitat types means natural habitat types in danger of disappearance, which are present on the territory referred to in Article 2 of the Directive and for the conservation of which the community has particular responsibility in view of the proportion of their natural range which falls within the territory referred to in Article 2.

(e) Conservation status of a natural habitat and its typical species that may affect its long term natural distribution, structure and functions as well as the long term survival of its typical species within the territory referred to in Article 2.

(i) Conservation status of a species means the sum of the influences acting on the species concerned that may affect the long term distribution and abundance of its populations referred to in Article 2.

In making a County Development Plan regard must be paid to the requirements of the Habitat's Directive 92/43 EEC and the SEA Directive 2001/42 EC.

An Appropriate Assessment has also to be carried out in accordance with **Article 6 of the EU Habitat's Directive**, as required under the Planning and Development Act 2010. The AA is a separate, but parallel, process that has overlapped significantly with the SEA process in the drafting of the County Development Plan. The importance of the Appropriate Assessment is to assess the potential impact of Natura 2000 Sites, and their conservation objectives, and how these specifically are applied in relation to the implementation of the Plan. This is required so as to determine that there will be no significant detrimental effect identified, as a result of the implementation of the Plan, to the integrity of any European site.

It is our intention in the course of the submission to demonstrate, using An Bord Pleanála's decision based on the evidence heard by their Inspector at the Oral Hearing of October 2012 in Glenties, that these objectives are in conflict with the open-range zoning for wind farm development in the current County Development Plan, and the removal of all restraints intended to provide Strategic Environmental Protection.

The Planning and Development (as amended) Act 2010, as stated, requires an SEA assessment pursuant to the Directive, and an Appropriate Assessment pursuant to the EU Habitat's Directive, as part of the Development Plan process. The current County Development Plan fails to meet these objectives. This was noted in the Manager's report and the Draft Plan May 2nd 2012, when you recorded the concerns of the Department of Environment in relation to material alterations 52/59, 76, 77 and 83, that these designations were not evidence based.

The review of the County Development Plan runs in parallel with both the SEA Directive and the Habitat's Directive. The Environmental Report is the primary element in the SEA process, and land use within the County Development Plan is subject to a systematic process that predicts and evaluates the likely environmental effects of implementing the plan, and provides an understanding of the environmental consequences of the objectives, and policies, of a Plan. This also provides for any changes and considerations, in mitigation and monitoring proposals, which may be deemed necessary, or desirable, during the lifetime of the Plan.

4. The European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009

These regulations came into operation in July 7th 2009. These compliment and support the environmental objectives (Surface Water Regulations) 2009.

The regulations were introduced in response to a decision of the European Court of Justice against Ireland and are specifically intended to support the achievement of favourable conservation status for the habitat of the Pearl Mussel, which is protected under the Habitat's Directive. In essence the regulations set environmental quality objectives for its habitat, requiring that management plans are drawn up. The regulations place a specified duty on public authorities to ensure adequate protection, as set out in **Article 2** of the Regulations. and apply only to habitats listed in the first schedule to the Regulations, all of which are candidate SACs and relevant to the proposed amendment that we are seeking in this instance.

The Regulations require the Minister for the Environment Heritage and Local Government to carry out base line monitoring at each of these locations as well as setting out identified pressures and sources, which have the potential to lead to an unfavourable conservation status, as identified in **Article 6**.

Article 7 of the Regulations requires the preparation of draft sub basin management plans, referred to previously, for the achievement of fulfilling the objectives of the regulations in addition to River Basin Management Plans, prepared under **Article 11** (Water Policy) Regulations 2003.

Article 5 of the Regulations requires the EPA to monitor and report on the conservation status due to water quality or other hydrological factors.

In the most recent EPA Report published this year, wind farms were identified as a source of pressure leading to siltation and degradation of habitat of the Freshwater Pearl Mussel. In the Donegal case, Corkermore wind farm was identified in relation to the Oily River.

By way of illustrating this Policy Framework we will quote directly from Inspector Kevin Moore on the Straboy wind farm application:

Impacts of the Freshwater Ecology

“The Owenea River catchment is considered very important because of the presence of Freshwater Pearl Mussel and Atlantic salmon, both of which are Annex II species listed in the EU Habitats Directive (92/43/EEC). The catchment also forms part of the West of Ardara / Maas Road cSAC and its special conservation interests also include otter. The Shallogan and Stracashel Rivers form part of its catchment. There are several streams on the appeal site that comprise tributaries to these rivers. The impacts arising from peat sedimentation and pollution associated with the proposed development could potentially result in significant impacts for these watercourses and ultimately impact on the Annex II species. I draw the attention of the Board to the most notable watercourses that traverse the site as follows:

- *There is a stream proposed to be crossed by the access track from Borrow Pit 4 to turbines T24 and T25. This is a tributary of the Stracashel River and is the main outflow from Lough Nacroaghy. It is a stream known to have good potential for salmonids.*
- *Borrow Pit 4 is within 50m of a tributary of the Stracashel River. The land slopes towards the stream from the pit.*

A small stream feeds into the eastern end of Lough Nacroaghy, where the access track to T17 runs, and is recognised as being of importance to spawning salmonids. The lake gravels are very clean in this area.

- *A drainage channel bisects Peat Repository Area 1 and alternates between overground and underground flow. Its downstream connectivity is unclear but it is recognised as having potential connectivity to a tributary of the Stracashel River.*
- *A drainage channel bisects Peat Repository Area 2 and it has connectivity to a tributary of the Shallogan River.*
- *A drainage channel is located down slope of the proposed access track to T10 and connects to a tributary of the Shallogan River.*
- *A stream runs within 100m of proposed T6 and flows into a tributary of the Stracashel River.*

It is estimated that excavated peat associated with the development would total approximately 73,000m³. Clearly, in the event of prolonged periods of rainfall and the generation of surface water runoff, the potential for peat sediment entering water bodies is significant. The potential effects arising from the peat storage areas, from the excavated areas, side-casting and provision of the internal road network are evident. Clearly at the construction phase the significant volumes of concrete proposed to be used for foundations and hard standing areas, as well as spillages from hydrocarbons, also have the potential to enter surface waters. Thus, the proposed development poses significant risks to freshwater habitats and their associated ecology. The reliability, dependability, and continuity of the array of measures proposed to prevent the undermining of water quality are in question and this poses serious risks to freshwater quality.

I submit that the sensitivity of the freshwater ecology should not be subjected to the hazard potential arising from this development, not alone because of the adverse effects for water quality on the site, but primarily because of the effects downstream and the consequential effects for the Owenea River system.

It is my submission to the Board that the potential on this site for peat slippage and

sedimentation of sensitive watercourses poses a serious risk to the habitat of the freshwater pearl mussel in the Owenea catchment.

The Bord will note the effects that resulted from the slippage of peat at the Derrybrien wind farm in County Galway.

***Displaced peat entering watercourses can travel several kilometres.** The applicant's NIS acknowledges that entry of peat sediments into local watercourses is possible. I submit to the Board that the triggering of serious damage to watercourses by peat slippage, particularly from the repositories, by the decline in maintenance of the wide range of necessary drainage measures to curb impacts on water quality on this site over time, the erosion of excavated areas, and by the failure to stabilise displaced peat on the many significant slopes on this site together create a notable hazard to water quality.*

Ireland is estimated to hold 46% of all freshwater pearl mussels in the European Union.

*The Owenea catchment forms a critical component of the natural habitat for the pearl mussel in the State. Like most other river catchments where it is found in Ireland, its population is not in a favourable condition. Indeed, the conservation status of the pearl mussel is very poor for the Owenea. This is a most important reason for conserving and protecting this species. At present it cannot sustain juvenile recruitment. The Draft Freshwater Pearl Mussel Owenea Sub-Basin Management Plan notes that monitoring shows that silt and nutrients are the major negative influence on the catchment's population. **The improvements needed for the catchment, as identified in the Sub-Basin Management Plan, are to restore juvenile habitats to appropriate condition by simultaneously reducing nutrient and silt inputs to the river.** The Plan's assessment demonstrates that significant siltation is an issue with the Stracashel and Shallogan Rivers. The Plan also notes that wind farms within the catchment are a cause for concern and that there are potential significant risks from such developments. Site clearance works associated with wind farm installations are noted as a cause for concern. In reference to priority measures, the Plan refers to some applications for wind farms comprising a large number of turbines and that the location of these turbines, particularly where they are located on peat and peaty soils, is the major concern. Finally, I note that the Plan identifies the key issues for the future management of the river catchment and these include minimisation of sediment losses arising from site clearance works for development, minimisation of sediment and nutrient losses arising from land use change, and control of hydro-morphological pressures, including drainage, drainage maintenance, bank stabilisation works, etc. It is my submission, therefore, that the introduction of new sources of siltation into the on-site watercourses, moving into the Shallogan and Stracashel Rivers and ultimately into the Owenea itself, **could not be construed as complying with the measures proposed to be taken in the Sub-Basin Plan** which seek to reduce sources of siltation and ultimately to improve water quality **with the objective of improving the status of freshwater pearl mussel.***

*The reliance on water quality for the survival and improvement in status of freshwater pearl mussel in the Owenea River catchment is inter-related with a dependence on salmonid fish hosts. **Given the sensitivity of this location and the acknowledged high water quality within the site, one would question the acceptance of the principle of a wind farm here.** Given the high rainfall prevalent at this location, the proposed excavation of peat on this site and its storage will alter the hydrological regime and will*

increase water flow from the site by the development and invariably will lead to peat silt discharging to the on-site watercourses. The movement of this silt to the sensitive locations within the river system where the pearl mussel is known to exist can readily occur. In addition, the settlement on substrates on the site, such as on spawning areas in the waterbodies, and the resulting changes to habitat, can affect key elements of the catchment and affect the quality of the habitat for salmonids. Similarly, adverse impact on water quality affects the natural habitat for otter. The ability for any or each of the carefully designed drainage measures and the peat repositories to fail is notable. Clogging of drainage channels and piping under roads, overtopping of fencing during periods of heavy rainfall, etc. will result from development on the slopes at this site. As a consequence,

I am not satisfied that the mitigation measures proposed eliminate the serious risk to freshwater ecology that results from the development of this scheme. Increases in fine sediment movement through the streams, tributaries and the Owenea River as a result of this significant source being created at Straboy will produce negative impacts by clogging previously clean gravels and thus undermining freshwater ecology in this area. There can be no reliance on, or easy acceptance of, the applicant's conclusion that entry of peat sediments into local watercourses will, with the complex range of mitigation in place, keep such impacts local.

This highlights the complexities of the local topography of these areas, and their unsuitability for this type of development. This should have formed part of the SEA assessment and the Appropriate Assessment of the County Development Plan.

We reproduce Map1, showing the distribution of Freshwater Pearl Mussels in Ireland Ver 05 2013, including the 6 Sub Basin Districts in County Donegal. The Owenea Catchment is identified as an SAC for this population and listed for protection under the 2009 Regulations.

Map 2 from Evelyn Moorken's Owenea Sub-Basin Management Plan shows the Owenea Catchment Area.

Map 3 shows the current designations for wind farms within the catchment, "open to consideration", which include the Straboy site (marked as Map 9 on CDP extract). It is our contention that, given the realities of development of this nature in this environment, said development poses an unacceptably high risk to the water quality on which this protected species relies on for its survival.

A related issue arises in respect of peat stability and the volumes of peat to be removed to allow for wind farm developments in these areas. Blanket Bog and Wet Heath are priority Habitats for Ireland, listed for protection under the Habitat's Directive 92/43/EEC. These peat areas are also natural carbon sinks, as well as regulating water runoff.

They provide a species rich Habitat that is host to many listed protected species. These areas are important ecology zones, worthy of protection. It may be informative to provide the following extracts from the Inspector's report as baseline information to help inform the Council members of the issues arising;

"The Plan notes that Ireland is a signatory to the International Ramsar Convention on

the conservation and wise use of wetlands. Wetland habitats, such as peat bogs, are noted in the Plan to have a high ecological value and are seen to have a role in the carbon cycle, helping to mitigate against climate change.”

Active blanket bog is capable of removing 0.7 tonnes of carbon per hectare from the atmosphere on an annual basis. The figure of storage of 5,000 tonnes per hectare of blanket bog is given as an average by Pearce and Higgins 1994.

In the case of the Straboy development, the development of this site would have required the removal of somewhere in the region of 71,000 cubic metres of peat, with the consequent release of stored carbon. Wind farm developments on such sites therefore cancel out any perceived environmental benefit, and most especially in such sensitive environments, when the wider ecological impacts on flora and fauna are taken into consideration.

The current County Development Plan has an objective to protect and enhance the environment.

The current zoning of the Owenea Catchment as suitable for wind farm development or, as stated in the plan, “open to consideration”, when considered in the context of the refusal of the Straboy application clearly highlights the conflict in policies.

Policy NH-P-5 requires consideration of the impact of potential development on habitats of natural value that are key features of the County’s ecological network, and to incorporate appropriate mitigating biodiversity measures into development proposals. This site is a very important ‘stepping stone’ site.

Its value will be lost by the wind farm development proceeding. While on the one hand the principle of the proposed development sits comfortably with the provisions of the Plan on renewable energy, the likely significant ecological effects do not sit with the natural heritage provisions that centre on conservation.

5. Wind Farm Developments and related Ecological Impacts

Wind farms by virtue of scale and size are not localised features.

In the case of Donegal, displacement of peat entering water courses, and the general sensitivity of Fresh Water Ecology, are notable concerns.

Peat stability is a central consideration in this respect. County Donegal hosts an ecologically rich and varied range of environments.

There are a total of 74 European sites within the County Development Plan area. There are 41 Annex (i) habitats, listed under the Habitat's Directive, represented in the SACs of County Donegal, with 9 of the Priority Habitats listed under the Directive, recorded here.

The full extent of the County's natural heritage extends to more than just those sites. In

Case 258/11 the European Court of Justice identified the relevant requirements for appropriate assessment under the Habitat's Directive.

These are extracts from the Inspector's Report in relation to peat stability, and related issues, taken from the evidence of Dr. Bragg and Professor Johnston to the Oral Hearing.

“Dr. Bragg:

- *The spreading of peat in a fairly thin (1-2m) layer over the ground surface has proven problematic in Scotland, resulting in its drying out and being washed off into watercourses.*
- *The aspiration to establish bog vegetation on the PRAs is ambitious. A fundamental requirement will be to establish suitable hydrological conditions, such that the water table remains close to the upper surface of the translocated peat layer. The water transmission characteristics of the berms will be a major factor in determining whether or not this can be achieved, and it is possible to envisage scenarios with permeable berms in which the translocated peat will always be well-drained and unable to support bog vegetation.*
- *Effective berms will be essential to prevent translational sliding of peat placed on PRA-1. The manipulations to be performed on the PRA may increase the tendency for peat to become unstable. The insertion of berms to ground bearing level will create a route for water to penetrate rapidly into the till layer beneath the peat. **This could, especially during heavy rainfall following a period of dry weather, create conditions for a peat slope failure** triggered by a build-up of hydrostatic pressure in the substratum causing liquefaction of the basal peat or mineral layer, which would not necessarily be contained by the berms. **The presence of a spring at the upslope edge of the PRA is of particular concern in this context.***

Prof. Johnston:

- *The understanding of the hydrology of the peat resulting from the proposed excavations for the wind turbines, and the related area for deposition of the peat, is seriously insufficient for an adequate assessment of any environmental impacts to be made.*
- *The hydrology of peat is difficult to assess when it is in its natural state but, once excavated, the peat acquires quite different characteristics both at the exposed faces as well as in a re-deposited form.*
- *How the volume of peat material to be deposited in PRA-1 was derived is vague.*
- *The detail of how much rock is required for the berms of broken rock, or the source of mineral soil that is to be used to provide a covering layer, is not given.*
- *It is not clear what function the proposed construction of cells bounded by rock berms is supposed to serve. If it is to contain the peat and water so as to provide a means for peat regeneration, it is extremely unlikely to achieve this. Given mean annual rainfall at this location, there will be a significant drainage problem involving entrained peat material which will not be solved by conventional settlement ponds or ‘siltbusters’. Excavated and re-deposited peat of the humification values given is likely to have a significantly increased permeability compared to its natural state and ‘sealing’ a rock bund sitting on excavated rock with a thin cover of mineral soil suggests that there will be leakage around the site as well as runoff from the surface. Moreover, the potential for slippage of the peat downslope of the site is greatly increased by the presence of the excavation for the bund as well as from the leakage through it.*

- *Research by NPWS shows that slopes of greater than 1.5 degrees are unlikely to sustain sphagnum growth. Thus, what the PRAs will ultimately sustain is unlikely to match any of the surrounding ecology of the blanket bog.*
- *The control of upslope runoff onto the site appears to be ad hoc. No analysis of how much water is likely to be diverted has been given or its potential need for treatment. How the excavated peat is to be placed in the repository is also unspecified. The methods used can have serious detrimental effects on the existing peat and therefore affect the drainage characteristics of the site.*
- *A serious issue is the slope of PRA-1 at 4-8 degrees. Although there are shelves, it remains a slope magnitude of high risk with respect to peat stability, particularly with the amount of water passing through the site. Comparisons are made with the gas terminal site at Bellanaboy, County Mayo which originally envisaged placing excavated peat on existing blanket peat on a slope of less than 2 degrees, with permission being refused partly on the grounds of the problems of controlling drainage and the consequent risk of peat slides and/or erosion. It is further noted that the peat on that site was also to be contained within cells.*
- *Regardless of the efficacy of measured shear strength of peat using vane tests, the changed characteristics of excavated peat suggest that the best approach to analysis is through comparison with experience on other sites.”*

Professor Johnston concluded that the proposed repository is very likely to carry a high risk of failure, both from drainage control, as well as from potential peat sliding. **It was submitted that the design, location and environmental impact of PRA-1 have not been appropriately assessed, particularly with the existing houses down slope.**

Dr. Olivia Bragg of Dundee University, and Professor Paul Johnston of Trinity College Dublin, both gave evidence of the risks associated with peat stability on this site and concluded that development of this nature was not feasible.

Both gave evidence on behalf of the Glenties Wind Farm Information Group.

Below we quote the Inspector’s concluding remarks in relation to peat. This once again highlights the unsuitability of these areas ‘as open to consideration for wind farm development’ and why the zoning must be removed.

*“Overall, it is my submission that the proposed peat repositories are likely to carry a high risk of failure. Furthermore, the applicant’s design methodologies for peat storage are inconsistent and cannot be relied upon. There is a serious lack of clarity on a wide range of critical issues. There are significant drainage concerns arising from the development of the proposed internal road network and the management of risk from the excavations and the management of risk from the excavations at turbine sites is also of concern. **The outcome of these findings is that the proposed development forms a serious risk to people, flora, fauna and the natural environment of this area.**”*

Below are listed SACs, SPAs, and NHAs within the general catchment of the Straboy site. Natura 2000 sites, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), are of European importance, designated to protect biodiversity.

West of Ardara / Maas Road SAC
Lough Nillan Bog SAC
Lough Nillan Bog SPA
River Finn SAC
Glenveagh National Park SPA
Cloghernagore Bog and Glenveagh National Park SAC
Coolvoy Bog SAC
Gannivegil Bog SAC
Meenaguse Scragh SAC
Meenaguse/Ardbane Bog SAC
Sheskinmore Lough SPA
Inishkeel SPA.

West of Ardara / Maas Road SAC

It includes the Owenea river system. Its special conservation interests include blanket bog, wet heath, oligotrophic lakes, freshwater pearl mussel, otter and Atlantic salmon. The conservation area is also known to support nationally important numbers of Eider and is important for Merlin, Peregrine Falcon and Hen Harrier, which are Annex I species in the Birds Directive.

Gannivegil Bog cSAC

Its special conservation interests are blanket bog, wet heath, and oligotrophic lakes. Winter feeding sites for Greenland White-fronted Goose occur to the north and south of Lough Gannivegil. Red Grouse occurs within the site, and Golden Plover are thought to breed in the area.

Lough Nillan Bog cSAC

This bog has special conservation interests of blanket bog and oligotrophic lakes.

River Finn SAC

Its special conservation interests include blanket bog, oligotrophic lakes, wet heath, and Atlantic salmon. It also supports Red listed Red Grouse and Ring Ousel. Golden Plover, Peregrine Falcon and Merlin breed in upland areas of the site.

Lough Nillan Bog SPA

It comprises an extensive complex of blanket bog, wet heath, lakes, rivers and streams. Its special conservation interests are Golden Plover (breeding), Merlin (breeding), Greenland White-fronted Goose (wintering), and Dunlin (breeding), each of which are listed on Annex I of the Birds Directive. Red Grouse, a Red Data Book species, is also resident.

The County Development Plan identifies areas where wind energy proposals are not favoured, as sites of significant environmental Heritage and Landscape constraints, including areas of Freshwater Pearl Mussel habitat. However, as shown in figures 4 and 9, areas within the Owenea Catchment have been left open to consideration for wind energy development.

This zoning did not take into account the significance of this environment, nor the characteristics of the site in terms of depth of peat etc., nor the likely impact on local

water courses, in addition to all the other factors which were ventilated at the Oral Hearing into the Straboy application, Glenties, October 2012.

6. Socio and Economic

Tourism is perhaps Donegal's most important industry. The visual impact of wind farm development, sited in the wrong areas, can seriously detract from the landscape and visual qualities of an area, resulting in the tourism product being seriously eroded.

In the case of Donegal, the importance of landscape is an essential element in the tourism product and a material asset that must be protected.

The interrelationship between landscape and cultural heritage has to be understood. The distortion of the natural landscape ultimately impacts on cultural heritage in the context of Donegal. In doing so the local fabric of the economy is undermined.

The argument that jobs will be created locally through the development of wind farms has never been substantiated by the industry. Contrary to this claim, despite having the highest percentage of wind farms in the country, no such benefit has materialised in County Donegal. No national, nor local, cost benefit analysis has ever been undertaken in relation to this industry.

The reality is clearly that the beneficiaries of these developments are not located locally and the jobs will be created elsewhere in manufacture and support services.

7. Noise and Health Impacts

One of the most fraught areas associated with wind farm development arises in respect of public concern relating to noise and health, and what is an appropriate separation distance. Currently the Donegal County Development Plan (as amended in 2012) removed all separation distances from residential homes, and other community gathering centres, and wind farms.

A considerable volume of material has been published on this issue, with evidence given at the Straboy Oral Hearing by Dr. Chris Hanning (an expert on sleep disturbance) and Dr Michael Cooke, the local Glenties GP.

The Inspector concluded that: *“the extent of confusion, lack of clarity, conflict of epidemiological studies and, most importantly, lack of appropriate guidance on the assessment of public health impact, made the Bord's task of adequately assessing the issue of public health impact improbable. However it is reasonable to conclude that those particularly sensitive to noise in the quiet rural noise environment of Straboy and its environs would likely experience disturbance by the proposed wind turbines and the response to this disturbance could potentially affect the health of those receptors.”*

Inspector Moore concluded that the Bord should seek guidance from the Department on this aspect of Impact Assessment.

The Planning Authority must have regard to their obligations to protect public health, and to ensure that acceptable separation distances are provided for in the County Development Plan. Based on Dr. Hanning's evidence, and having regard to the Precautionary Principle, we would propose a separation distance be introduced that is based on ten times the tip height of the turbines as an absolute minimum.

I mention here the failure of a turbine at Loughderryduff on the 22nd March last. While the reasons for this failure have been identified in a limited way by a report on the internet (just last week) from an American website, the operators of this wind farm, and its Directors, have consistently refused to publish the findings of the manufacturers' investigation into the cause of the failure, and the subsequent collapse of the turbine. The public are rightly concerned about the underlying reasons for this failure, and the risks associated with such happenings to members of the public, as it is known from international experience that blades can break off turbines and travel at speed for long distances. If wind farms are located close to human habitation, or roadways, this is an inherent risk and a further cause of disquiet among the public.

With plans now afoot to replace the fallen turbine at Loughderryduff, the public are entitled to know, before that work is undertaken, what happened in this event. The public need to have the opportunity of independent evaluation of this report into the causes of the accident, and the conclusion on the significance of any future risk associated with the development on this site.

8. Conclusion

Taking account of the cumulative impacts associated with these developments, the importance of the local environment, and its sensitivity to change, there is a need for these proposed variations to protect the societal interest, and to comply fully with the requirements of EU Legislation on the environment in the interests of biodiversity.

Under Article 6 of the Habitats Directive, Member States must show the steps taken to achieve the Directives objectives, as well as avoiding deterioration in those natural habitats and habitats of species. To achieve these requirements in Ireland the European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I. No. 296) have been established and require:

- a) Specific objectives and targets, in accordance with Regulation 2 and the Fourth Schedule, and deadlines for their achievement;
- b) The investigation of sources of pressures leading to the unfavourable conservation status of the pearl mussel;
- c) The establishment of a programme, including a timeframe, for the reduction of pressures giving rise to unfavourable conservation status. The programme shall include pressure reduction targets and deadlines, either in relation to individual pollutants, or to particular sectors, or activities, or both, to be implemented within the sub-basin, or parts of the sub-basin as appropriate;
- d) A detailed programme of monitoring to be implemented within the sub-basin, or parts of the sub-basin as appropriate, in order to evaluate the effectiveness of measures and

progress made towards restoring favourable conservation status.

In addition to this, the Water Framework Directive (WFD) requires that a programme of measures

(POMs) is established in order to achieve its environmental objectives. The EU WFD (2000/60/EC), which came into force on 22 December 2000, is the most important piece of European water legislation. It aims to promote common approaches, standards and measures for water management on a systematic and comparable basis throughout the European Union.

The local authority is in receipt of 2.3 million euro of funding for measures aimed at safeguarding the habitat of the Freshwater Pearl Mussel in the Leannan Sub-Basin Management Plan.

Provisions must be made in the County Development plan to protect the ecology of this species in the Owenea and the other Sub-Basin Districts identified in the Plan.

Under Article 17 of the European Communities Environmental Objectives Regulations 2009, regular reports are required to be submitted to the Commission on progress being made on the environmental quality objectives of the Owenea, and the achievement of favourable conservation status for the Pearl Mussel. The most recent of these reports is due this year.

Last year, when the previous variation of the Plan was open to public consultation, 166 submissions from the public were made on the wind energy Strategy Proposals. Of these, the majority opposed the widespread zoning of 2,300 town lands as open for consideration, and also sought a set back distance from domestic dwellings of 1km in the variation. Councillors voted instead to remove all separation distances. As local representatives you are asked to recognise that the Development Plan is the People's Plan, and I submit to you that there is an urgent need for a variation to exclude from wind farm development the Sub-Basin District of the Owenea on environmental grounds, as submitted, and also to consider the introduction of a meaningful set back distance from domestic dwellings.

Thank you for your interest.