



**AA Screening Report
of Proposed Variation No. 4
to the
Wicklow County Development Plan
2010 - 2016**

Proposed Amendments to the County Wind Energy Strategy

**Wicklow County Council
January 2014**



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Section 1 Introduction and background to Appropriate Assessment

1.1 Introduction

This is the Appropriate Assessment screening report for Proposed Variation No. 4 to the Wicklow County Development Plan 2010-2016. The proposed variation involves three specific changes (and any 'changes consequent' arising from the principal alterations) to the existing Wicklow County Development Plan 2010-2016 'Wind Energy Strategy' (WES) and is attached for convenience purposes.

This report is being carried out in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC). The purpose of this report is to assess the likely effects of the proposed variation either alone or in combination with other projects or plans, on any Natura 2000 site and to consider whether these impacts are likely to be significant and thus require an appropriate assessment.

The report has taken into consideration the European Commissions publication – '*Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Articles 6 (3) and (4) of the Habitats Directive 92/43/EEC*' (EC 2002), Circular Letters SEA 1/08 & NPWS 1/08 from the Department of the Environment, Heritage and Local Government and '*Appropriate Assessment of Plans and Project in Ireland – Guidance for Planning Authorities*', (DoEHLG 2009).

Prior to the completion of this assessment, non-statutory consultation with relevant environmental authorities was carried out, alongside the statutory consultation carried out under Strategic Environmental Assessment legislation. While submissions were received relating to the SEA process, no submissions were received that related to this Appropriate Assessment screening report. The details of these submissions are set out in Appendix C attached to this document.

1.2 Legislative Context

The EU Habitats Directive

The assessment of impacts on designated European sites i.e. Special Areas of Conservation and Special Protection Areas, finds its origins in the EU Directive on the Conservation of Habitats, Flora and Fauna (92/43/EEC), more commonly known as the "Habitats Directive" which came into force in 1994 and was transposed into Irish law in 1997. "The Habitats Directive" provides legal protection for habitats and species of European importance.

The Habitats Directive was formulated as a direct result of the continuous deterioration of natural habitats and the increasing impacts on wild species arising in the most part as a result of development and agricultural activity. The main aim of the EC Habitats Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance.

The conservation status of a habitat is defined in Article 1 of the Directive as the sum of the influences acting on 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. The conservation status of a natural habitat will be taken as favourable when:

- Its natural range and the areas it covers within that range are stable or increasing,
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future,
- The conservation status of its typical species is favourable¹.

Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of sites known as 'Natura 2000'. These are Special Areas of Conservation (SACs), designated under the Habitats Directive and Special Protection Areas (SPAs), designated under the Conservation of Wild Birds Directive (79/409/ECC).

¹ Council Directive 92/43/EEC

In its implementation, the Habitats Directive introduces the 'Precautionary Principle' approach towards proposals whereby plans or projects can only be permitted having ascertained that there is not likely to be any significant impact on the conservation status of the designated site.

As set out in MN2000², the conservation of natural habitats and habitats of species forms the most ambitious and far-reaching challenge of the Habitats Directive. This is set out in Article 6 of the Directive, which governs the conservation, and management of Natura 2000 sites. In this context Article 6 is viewed as one of the most important of the 24 articles of the directive being the one which determines the relationship between conservation and land use.

Article 6 of the Directive has three main provisions. This structure provides for a clear distinction between Article 6(1) and (2) which define a general regime while Article 6(3) and (4) define the procedures to be applied to specific circumstances.

A) Article 6(1) makes provision for the establishment of the necessary conservation measures, and is focused on positive and proactive interventions. This relates to the development of conservation Management Plans specifically designed for designated sites.

B) Article 6(2) makes provision for avoidance of habitat deterioration and significant species disturbance. Its emphasis is therefore preventive.

C) Article 6(3) and (4) set out a series of procedural and substantive safeguards governing plans and projects likely to have a significant effect on a Natura 2000 site.

Article 6 is seen to reflect the overall aim of the Habitats Directive "*promoting biodiversity by maintaining or restoring certain habitats and species at 'favourable status' within the context of Natura 2000 sites*" while taking into account economic, social, cultural and regional requirements as a means to achieving sustainable development

The Habitats Directive and the Proposed Variation

This proposed variation to the WES has been prepared in accordance with Section 13(2) of the Planning & Development Act (as amended). In accordance with the EU Habitats Directive the proposed variation is required to be screened in accordance with Article 6(3) of the EU Habitats Directive which specifically states that:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".

1.3 Stages of the Appropriate Assessment

This appropriate assessment has been prepared in accordance with the European Commission Environment DG document '*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*', referred to as the "EC Article 6 Guidance Document (EC2000)". The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and 6(4) of the Habitats Directive, and is viewed as an interpretation of the EU Commission's document "*Managing Natura 2000 sites*" (2002). This assessment has also taken into consideration the Department of the Environment, Heritage and Local Government publication '*Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*', (December 2009).

² MANAGING NATURA 2000 SITES - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (2000)

Stage 1 of the Methodological Guidance is the 'screening' process, which examines the likely effects of a project, either alone or in combination with other projects or plans upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. This stage of the screening process involves four steps, which fall under the following headings:

- **Management of the site** - *Involves determining whether or not the project or plan is directly connected with or necessary to the management of the site*
- **Description of the project or plan** - *Describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site*
- **Characteristics of the site** - *Identifying the potential affects on Natura 2000 site(s)*
- **Assessment of Significance** - *Assessing the significance of any effects on Natura 2000 site(s).*

Stage 2 of the process "Appropriate Assessment" follows Stage 1 where, following screening of the plan, it has been established the plan is likely to have significant, potentially significant or uncertain effects on any Natura 2000 site. Stage 2 involves the following:

- A description of the Natura 2000 sites that will be considered further in the Appropriate Assessment process;
- A description of significant impacts on the conservation feature of these sites likely to occur from the proposed development;
- Recommendations.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any negative impacts on European sites by identifying possible impacts early in the plan-making process, and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the Appropriate Assessment process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

Section 2 Screening

2.1 Screening

Screening determines whether Appropriate Assessment is necessary by examining:

- whether a plan or project can be excluded from Appropriate Assessment requirements because it is directly connected with or necessary to the management of the site, and
- the potential effects of the project or plan, either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives and considering whether these effects will be significant.

Screening involves the following:

1. A description of the plan or project, and local site or plan area characteristics;
2. Identification of relevant Natura 2000 sites and compilation of their qualifying interests and conservation objectives;
3. Assessment of likely effects - direct, indirect, or cumulative, undertaken on the basis of available information as a desk study or field survey or primary research as necessary;
4. Screening statement with conclusions.

This appropriate assessment screening exercise evaluates, based on scientific knowledge the potential impacts of the proposed variation on the conservation objectives of Natura 2000 sites within the County of Wicklow and within a 15km radius of the plan area³. The impacts assessed include the indirect and cumulative impacts of the proposed variation, considered with any current or proposed activities, developments or policies impacting on the site.

2.2 Management of the site

Determining whether or not the project or plan is directly connected with or necessary to the management of the site.

Plans or projects that are directly connected with or necessary to the nature conservation and management of a Natura 2000 site are exempt from the need for Stage 2 Appropriate Assessment. For this exemption to apply, management should be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive, for example the relationship between the proposed plan and the management of the Natura site should be shown to be direct and not a by-product of the plan.

The proposed variation involves three specific changes to the WES. This document sets out a strategy for the exploitation of wind energy and is not directly connected with or necessary to the nature conservation management of Natura sites, and as such the exemption does not apply.

2.3 The Wicklow Wind Energy Strategy

The Wind Energy Strategy forms part of the Wicklow County Development Plan and provides a framework which allows the Council to manage the development of wind turbines whilst protecting environmental and material assets. The entire strategy relates to all lands within County Wicklow which comprises of an area measuring 2,018sqkm.

The existing Wicklow Wind Energy Strategy was developed generally in accordance with the DoEHLG guidelines where the following methodology was employed:

Step 1: Identify locations that should not be considered for wind energy development, by virtue of a special conservation designation or other factors considered to render the location unsuitable

Step 2: Identify locations where low wind speed would not render exploitation viable

³ Any Natura 2000 sites within the likely zone of impact of the plan or project. Generally 15km but can vary – Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities (February 2010).

Step 3: Evaluate the residual areas against the following criteria: Visual and landscape sensitivity; impact on material assets; land cover issues; grid connection issues.

Step 4: Set out the Strategy

2.5 Description of the proposed variation to the Wind Energy Strategy

The following changes to the WES are being proposed:

Proposed Variation 4.1

To so vary the Wind Energy Strategy such that more emphasis is placed on the landscape vulnerability; in particular:

- (a) All lands designated 'Area of Outstanding Natural Beauty' currently in the 'Most Favoured' category of the Wind Energy Strategy be re-designated 'Not Favoured', and
- (b) All lands designated 'Area of Special Amenity' currently in the 'Most Favoured' category of the Wind Energy Strategy be re-designated 'Less favoured'.

Proposed Variation 4.2

To so vary the Wind Energy Strategy by including adding the following text under the description of 'Most Favoured' areas for wind farm development:

"In particular, due regard shall be taken of listed views and prospects and any development that would contravene objective VP1 of the Plan⁴".

Proposed Variation 4.3

To so vary the Wind Energy Strategy by including the following text under Section 3:

All applications for wind turbines with a rotor diameter of 50m or less shall include a detailed assessment of noise and shadow flicker impacts on all residences within 500m from any turbine. Applications providing for a rotor diameter in excess of 50m shall include a detailed assessment of noise and shadow flicker on all residences within a minimum radius of 10 times the diameter of the rotor e.g. a wind turbine with a rotor diameter of 65m will be required to carry out an assessment of impacts on all residences within a minimum 650m radius of any turbine.

The proposed variation document (attached) sets out the existing Wind Energy Strategy, adopted in 2010, with the proposed changes marked thus: **red text** for proposed new text, ~~blue-strikethrough~~ for proposed deleted text.

In the event that these changes are made by the elected members of Wicklow County Council, a number of 'changes consequent' to the Wind Energy Strategy would be required in order that the document makes sense, is still internally consistent and is easily understood. These 'changes consequent' are shown in **green text** (for new text) and ~~green-strikethrough~~ (for deleted text) in the attached document.

The variation is proposed as Wicklow County Council considers that the Wind Energy Strategy adopted in 2010 did not adequately take account of landscape vulnerability as described in the Wicklow Landscape Characterisation designations, did not adequately take account of views and prospects listed in the Wicklow County Development Plan and did not adequately take account of impacts on residential amenity arising from noise and shadow flicker effects and in particular, the fact that turbine size is increasing resulting in more extensive impacts than previously envisaged.

⁴ To protect listed views and prospects from development that would either obstruct the views, prospects from the identified vantage point or from an obtrusive or incongruous features in that view/prospect. Due regard will be paid in assessing development applications to the span and scope of the view/prospect and the location of the development in that view/prospect.

2.6 Status of the Wicklow Wind Energy Strategy

The Wind Energy Strategy forms part of the Wicklow County Development Plan 2010-2016. It is an appendix to the plan, which does not set out policies or objectives, but provides guidance to be used in the implementation of the objectives of the Development Plan and in particular, provides tools for the assessment of applications for wind turbines. The development of wind energy projects in County Wicklow will remain to be guided by the objectives of the plan, which are:

- WE1** To encourage the development of wind energy in accordance with the County Wicklow Wind Strategy and in particular to allow wind energy exploitation in most locations in the County subject to:
- consideration of any designated nature conservation areas (SACs, NHAs, SPAs etc) and any associated buffers
 - impacts on visual, residential and recreational amenity
 - impacts on 'material assets' such as towns, infrastructure and heritage sites
 - consideration of land cover and land uses on or adjacent to the site
 - consideration of grid connection issues
 - best practice in the design and siting of wind turbines, and all ancillary works including access roads and overhead cables.
- WE2** To facilitate the development of wind measurement masts through the granting of temporary planning permissions for this purpose, which will be limited to 2 years duration.
- WE3** All wind farms shall be granted for a duration of 10 years (maximum) unless a shorter period is requested.
- WE4** To facilitate the development of off-shore wind energy projects insofar as onshore facilities may be required.

The stated policies and objectives of the County Development Plan with respect to any development type, such as the objectives for wind energy developments set out above, must however be read in conjunction with all other relevant policies and objectives of the plan. In particular, all developments are subject to impact mitigation objectives, whether that is impacts on the environment generally, on specific areas or on human beings, as set out in the section to follow.

2.7 Mitigating Measures in the County Development Plan

All development that arise on foot of the Wicklow County Development Plan are subject to mitigation objectives / measures which ensure that significant, adverse impacts on the Natura 2000 network do not arise, in accordance with Wicklow County Council's obligations under the Habitats Directive. As the existing Wind Energy Strategy forms part of the County Development Plan these mitigation measures are also applicable to any proposals for the development of wind turbines, either under the existing WES or the proposed varied WES.

Mitigation measures:

- Chapter 3** 'Vision and Strategic Goals'
- Goal 9 - To protect and enhance the diversity of the County's natural and built heritage
To ensure the conservation, wise management of areas of natural heritage value, and of features of natural interest and value such as woodlands, wetlands, watercourses and areas of unspoilt uplands. To protect plant animal species and habitats which have been identified in the Habitats Directive, Birds Directive, Wildlife Act (1976) and the Flora Protection Order 1999 and in particular, to ensure that any programme, plan or project carried out on foot of this development plan, including any variation thereof, with the potential to impact upon a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Articles 6(3) and 6(4) of the EU Habitats Directive 1992 and "Appropriate Assessment of plans and projects in Ireland – Guidance for Planning Authorities" (DoEHLG 2009).

Chapter 17 'Natural Environment'

Strategy:

- To avoid negative impacts upon the natural environment;
- To promote appropriate enhancement of the natural environment as an integral part of any development;
- To mitigate the effects of harm where it cannot be avoided;
- To promote a reasonable balance between conservation measures and development needs in the interests of promoting the orderly and sustainable development of Wicklow.

Biodiversity Objectives

BD1 To produce a Local Biodiversity Action Plan (in accordance with the objectives of National Biodiversity Plan 2002), identifying species and habitats of importance at a County level, and identifying and promoting appropriate action for the conservation and management of these.

BD2 To ensure that the impact of new developments on bio-diversity is minimised and require measures for the protection and enhancement of bio-diversity in all proposals for large developments

BD3 To maintain the favourable conservation value of existing and future Natura 2000 sites (SACs and SPA's) and Annex I - Habitats and Annex II – Animal and Plant species in the County

BD4 Any programme, plan or project carried out on foot of this development plan, including any variation thereof, with the potential to impact upon a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directive 1992 and "Appropriate Assessment of plans and projects in Ireland – Guidance for Planning Authorities" (DoEHLG 2009).

BD7 To protect non-designated sites from inappropriate development, where it is considered that such development would unduly impact on locally important natural habitats or wildlife corridors.

BD8 To facilitate, in co-operation with the relevant statutory authorities and other groups, the identification of valuable or vulnerable habitats of local or regional importance, not otherwise protected by legislation

BD9 The National Parks and Wildlife Service will be invited to prioritise the preparation of Management Plans for Natura 2000 Sites which are located within the County. This will facilitate the development of site specific Conservation Objectives in the context of the proper planning and sustainable development of the County.

WH5 To encourage the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees, as part of the development control process, and require the planting of native, and appropriate local characteristic species, in all new developments

WH6 To encourage the retention, wherever possible, of hedgerows and other distinctive boundary treatment in the County. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, provision of the same type of boundary will be required of similar length and set back within the site in advance of the commencement of construction works on the site.

WT1 To implement the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and the EU Groundwater Directive to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality.

WT2 To resist development that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of natural habitats.

WT5 To promote the development of riverine walks and parks, subject to the sensitivity and / or designation of the riverside habitat particularly within 10m of the watercourse.

2.8 Other Instruments

Numerous other higher level measures further mitigate potential impacts of the County Development Plan and Wind Energy Strategy, including EU Directives, national legislation and various guidelines. Principal among these are the following:

- **The Habitats Directive (HD):** The European Council Directive on the Conservation of natural habitats and of wild fauna and flora (92/43/EEC) (Habitats Directive)
- **The Water Framework Directive (WFD):** The Water Framework Directive 2000/60/EC
- **The National Biodiversity Plan (NBP):** UN Convention on Biological Diversity 1992 – National Biodiversity Plan 2002 is as a result of this.
- **The Wildlife Act (WA):** Wildlife Act 1976 and Wildlife (Amendment) Act 2000 (Wildlife Act)
- **The Birds Directive (BD):** The 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) (Birds Directive)
- **The Ramsar Convention (R):** Convention on Wetlands of International Importance (Ramsar)
- **The Bathing Water Directive (BW):** Bathing Water Directive (76/160/EEC)
- **The Urban Waste Water Treatment Directive (WW):** (91/271/EEC) (amended by Directive 98/15/EEC)

2.9 Cumulative Effects

As set out above, the existing WES sits within a hierarchy of plans forming a subset of the Wicklow County Development Plan. The strategy sets out a framework to supplement the policies and objectives of the County Development Plan and is not a stand alone plan or programme in itself. Therefore the only plan or programme that the proposed variation ‘interacts’ with is the County Development Plan.

As part of the adoption of the County Development Plan in 2010, potential impacts arising from the implementation of the plan considered cumulative affects on the Natura 2000 network and that process involved consideration of a wide range of plans and programs that might interact with the CDP on the Natura 2000 network. This assessment did not result in the identification of any cumulative impacts.

Section 3 Natura 2000 Sites

A Stage 1 AA screening exercise evaluates, based on scientific knowledge the potential impacts of a plan/programme on the conservation objectives of any Natura 2000 site⁵. The impacts assessed include the indirect and cumulative impacts of the plan, considered with any current or proposed activities, developments or policies impacting on the site.

A key variable to determine whether or not a particular Natura 2000 site is likely to be negatively affected by a plan/project is its physical distance from the plan/project area, and it will generally, but not necessarily, be the case that the greater the distance the lower the possibility of impacts. For the purpose of this assessment a distance of 15km from the County Development Plan boundary was considered to be reasonable.

County Wicklow has fourteen candidate Special Areas of Conservation (SACs)⁶ and four Special Protection Areas (SPAs). There are thirteen Natura 2000 sites outside of County Wicklow but within the 15km boundary. These and the surrounding sites are all mapped on Figure 1. There are no Ramsar sites in the Plan area.

3.1 Special Areas of Conservation

Candidate Special Areas of Conservation (cSACs) have been selected for protection under the European Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC), referred to as the 'Habitats Directive', by the Department of the Environment, Heritage and Local Government due to their conservation value for habitats and species of importance in the European Union. The sites are candidate sites because they are currently under consideration by the Commission of the European Union. There are thirteen cSACs within the Plan area which are set out in Table 3.1 below. The 9 cSACs which fall within 15km of the Plan boundary are set out in Table 3.2 below. A brief synopsis of these sites is set out in Appendix B alongside the key conservation objectives for these cSACs.

Table 3.1 SACs within the plan area:

Number	Site Name	Site Code
1	Ballyman Glen	000713
2	Bray Head	000714
3	Buckroney-Brittas Dunes and Fen cSAC	000729
4	Carriggower Bog cSAC	000716
5	Deputy's Pass Nature Reserve cSAC	000717
6	Glen of the Downs cSAC	000719
7	Holdenstown Bog cSAC	001757
8	Knocksink Wood cSAC	000725
9	Magherabeg Dunes cSAC	001766
10	The Murrough Wetlands cSAC	002249
11	Vale of Clara (Rathdrum Wood) cSAC	000733
12	Wicklow Mountains cSAC	002122
13	Wicklow Reef cSAC	002274
14	Slaney River Valley cSAC	000781

⁵ Any Natura 2000 sites within the likely zone of impact of the plan or project. Generally 15km but can vary – 'Appropriate Assessment of Plans and Projects in Ireland', Guidance for Planning Authorities (February 2010).

⁶ Wicklow Reef SAC – runs along the County boundary near Wicklow Town and makes up 14 the cSACs within the County.

Table 3.2 SACs within 15km of the plan area:

Number	SAC Name	Site Code
1	Blackstairs Mountains	000770
2	Glenasmole Valley	001209
3	Kilpatrick Sandhills	001742
4	North Dublin Bay	000206
5	Pollardstown Fen	000396
6	Red Bog, Kildare	000397
7	River Barrow and River Nore	002162
8	Rye Water Valley/Cartron	001398
9	South Dublin Bay	000210

3.2 Special Protection Areas

Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - by the DEHLG due to their conservation value for birds of importance in the European Union.

There are four SPAs within the Plan area as detailed below in Table 3.3. The two SPAs which fall within 15km of the Plan boundary are set out in Table 3.4 below. A brief synopsis of these sites is set out in Appendix B alongside the main conservation objectives for these SPAs.

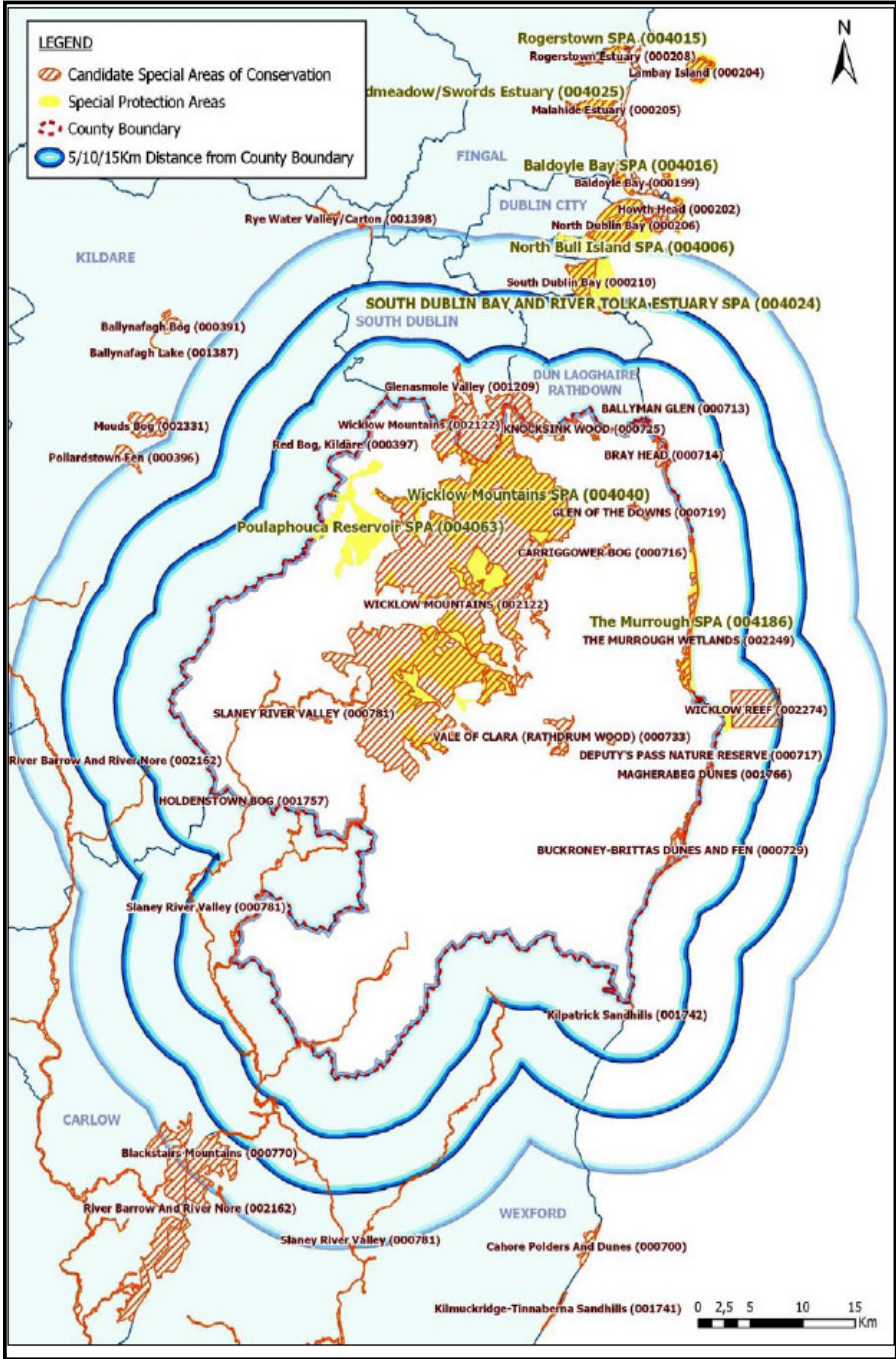
Table 3.3 SPAs within the plan area:

Number	SPA Name	Site Code
1	Poulaphouca Reservoir SPA	004063
2	The Murrough SPA	004186
3	Wicklow Head SPA	004127
4	Wicklow Mountains SPA	004040

Table 3.4 SPAs within 15km of the plan area:

Number	SPA Name	Site Code
1	North Bull Island SPA	004006
2	South Dublin Bay and River Tolka Estuary SPA	004024

Natura 2000 Sites within the plan area and within 5, 10 and 15km of the plan boundary.



Section 4 Assessment criteria

4.1 Assessment of the existing Wind Energy Strategy

As set out previously, the existing WES sits within a hierarchy of plans forming a subset of the Wicklow County Development Plan. The strategy sets out a framework to supplement the policies and objectives of the County Development Plan and is not a stand alone plan or programme in itself.

The County Development Plan itself and appended WES were subject to a full Strategic Environmental Assessment and a Habitats Directive Stage 1 screening assessment at the formulation and adoption stage in 2010 as part of the overall environmental assessment of the Wicklow County Development Plan 2010-2016.

The Stage 1 AA screening process for the County Development Plan set out a list of the individual policies and objectives of the entire County Development Plan (either alone or in combination with other plans or projects) with potential to give rise to impacts on the Natura 2000 sites either within the plan area or within a 15km radius of the plan area.

This assessment was set out in tabular format which identified whether these policies or objectives were likely to cause any direct, indirect or secondary impacts (either along or in combination with other plans or projects) on sites by assessing them against the sites conservation objectives⁷.

Where potential impacts were identified, then avoidance/mitigation measures contained as policies or objectives within the plan as well as other laws/standards/procedures were cited and it was determined whether there would be any residual impacts or not. The objectives specifically relating to the Wind Energy Strategy are set out in Appendix A. This assessment concluded that no projects that will cause significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites would be permitted on the basis of the County Development Plan (either individually or in combination with other plans or projects) considering the following factors:

- size, scale, land take
- distance from the Natura 2000 site or key features of the site
- resource requirements (water abstraction etc)
- emissions (disposal to land, water or air)
- excavation/transportation requirements
- duration of construction, operation, decommissioning, etc
- habitat area
- disturbance to key species
- habitat or species fragmentation
- species density
- changes in key indicators of conservation value (water quality etc)
- climate change
- key relationships that define the structure/function of the sites.

4.2 Assessment of the proposed variation

The proposed variation involves three specific changes to the existing WES. While proposed variations 4.2 and 4.3 will clearly not cause any impacts on the conservation objectives of any Natura 2000 sites as they relate to listed views/prospects and impacts on human beings (arising from shadow flicker and noise), proposed variation 4.1, which relates to the landscape of Wicklow and the identification of lands deemed most/less or not favoured to facilitate wind energy turbines requires more detailed evaluation.

The proposed variation places increased weighting/value on areas designated as being within the landscape category of 'Area of Outstanding Natural Beauty' (AONB) and 'Area of Special Amentiy' (ASA) and if adopted, would result in all areas designated 'AONB' being considered 'Not Favoured' for wind energy development and areas designated 'ASA' being considered 'Less Favoured' for wind energy development.

⁷ The HDA stage 1 screening assessment of the specific objectives relating to Wind Energy Development are set out in Appendix A Table 1 (a, b and c).

The overall impact of this change would be an increase in the area of lands identified as 'Not Favoured' or 'Less Favoured' in the County WES.

This change would potentially have the effects of:

- reducing the size, scale, land take of wind farm developments
- expanding the distance between wind farms and Natura 2000 sites
- reducing the resource requirements resulting from wind farm developments
- reducing the excavation/transportation requirements resulting from wind farm developments
- reducing the duration of construction, operation, decommissioning, etc from wind farm developments
- reducing habitat area affected, disturbance to key species, habitat or species fragmentation, species density, key relationships that define the structure/function of the sites
- reducing risk of changes in key indicators of conservation value (water quality etc)
- increasing emissions (disposal to land, water or air) and contributing to climate change - by reducing the area of the County where the development of wind turbines would be considered favourably, there may a reduction in the ability to exploit renewable energy sources, thereby maintaining dependency on non-renewable fuel sources, with the resulting potential adverse impacts on air and climatic factors.

4.3 Assessment of significance

As set out previously the purpose of AA Stage 1 screening is to assess the likely effects of the proposed variation either alone or in combination with other projects or plans, on any Natura 2000 site and to consider whether these effects are likely to be significant.

Following from Section 4.2 it is clear that the proposed variation to the existing WES is generally positive from an environmental perspective.

The potential effects identified are not considered to be significant as:

- The proposed variation does not in any way negate the requirement to comply with all of the policies and objectives of the County Development Plan, and its associated environmental mitigation measures which when taken together, would result in no significant adverse impacts on Natura 2000 arising;
- The increased emphasis/value placed on the 'AONB' and the 'ASA' in effect reduces the areas considered most suitable for wind turbine development thereby enhancing the protection of the natural environment including biodiversity and Natura 2000 sites;
- The continued designation of all SACs and SPAs within the 'Not Favoured' designation alongside the increased emphasis/value placed on the 'AONB' and 'ASA' positively steers wind turbine development away from Natura 2000 sites and associated sensitive areas;
- The potential adverse impacts on air emissions and climate change are not considered significant in a national or regional context, particularly given that the proposed varied WES still would allow for the exploitation of wind resources, in an environmentally sustainable manner, at suitable locations in the County.

Section 5 Conclusions

5.1 Criteria for Assessment

On the basis of:

- (a) The Wicklow County Development Plan 2010-2016 Appropriate Assessment screening report, and
- (b) This Appropriate Assessment screening report on proposed variation No. 4 to the Wicklow County Development Plan,

it is concluded that no projects that will cause significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites shall arise on foot of this variation (either individually or in combination with other plans or projects), considering the following factors:

- size, scale, land take
- distance from the Natura 2000 site or key features of the site
- resource requirements (water abstraction etc.)
- emissions (disposal to land, water or air)
- excavation/transportation requirements
- duration of construction, operation, decommissioning, etc.
- habitat area
- disturbance to key species
- habitat or species fragmentation
- species density
- changes in key indicators of conservation value (water quality etc.)
- climate change
- key relationships that define the structure/function of the sites

Furthermore it should be noted that developments permitted on foot of the provisions of the County Development Plan and this proposed variation will be required to conform to all relevant regulatory provisions for the prevention of pollution, nuisance or other environmental impacts.

5.2 Conclusion

The trigger for Stage Two Appropriate Assessment would be if the proposed varied WES were likely to have significant effects on a Natura 2000 site. This screening report evaluates the proposed varied WES (in the context of the Appropriate Assessment screening exercise already conducted for the 'parent' document, the Wicklow County Development Plan 2010-2016 and Wind Energy Strategy) to ascertain if the proposed variation warrants a Stage Two Appropriate Assessment.

This assessment finds that the proposed variation, by virtue of its purpose in providing a framework which allows the Council to positively control wind turbine development, whilst protecting environmental and material assets, with an increased emphasis on:

- landscape vulnerability as described in the Wicklow landscape characterisation designations,
- views and prospects listed in the Wicklow County Development Plan, and
- addressing impacts on residential amenity arising from noise and shadow flicker effects in the context of increasing turbine size;

has been formulated to ensure that developments and effects arising from permissions based on the proposed varied WES (either individually or in combination with other plans or projects) shall not give rise to significant effects on the integrity of any Natura 2000 sites. Therefore, in accordance with the '*Methodological guidance on the provision of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*', it is concluded that the proposed varied WES does not require any further assessment to demonstrate compliance with the Directive.

APPENDIX A

Assessment of potential and residual impacts of the Wicklow County Development Plans objectives and policies relating to adopted Wind Energy Strategy

The table below identifies whether the specific objectives relating to the existing wind energy strategy were likely to cause any direct, indirect or secondary impacts⁸ (either alone or in combination with other plans or projects) on the sites by assessing them against the sites' conservation objectives.

Where potential impacts were identified, then avoidance/mitigation measures contained as policies or objectives within the Plan as well as other laws/standards/procedures were cited and it was determined whether there were any residual impacts or not. The findings of this assessment deemed that the existing objectives as set out in Chapter 14 of the County Development Plan would not cause any residual impacts.

⁸ **Direct impacts** – these refer to habitat loss or fragmentation arising from land-take requirements. Habitat loss is caused by the complete removal of a habitat type. Fragmentation results in the incremental loss of small patches of habitat from within a larger site or area. Fragmentation can also result from impediments to the natural movement of species.

Indirect and secondary impacts – these do not have a straight-line route between cause and effect and it is potentially more challenging to ensure that all the possible indirect impacts of the plan, in combination with other plans and projects, have been established.

Cumulative impacts – these refer to a series of individually modest impacts that may in combination produce a significant impact. The underlying intention of this 'in combination' provision is to take account of cumulative impacts from existing or proposed plans and projects and these will often only occur over time. Where there is a series of small, but potentially adverse impacts occurring within or adjacent to a Natura 2000 site, consideration of their cumulative impacts should be considered.

Table 1 (A) Natura 2000 Sites within the plan area:

Policy/Objective found to have the potential to affect Natura 2000 sites. (Full wording is set out in Sect. 8 of the Environmental Report)	Ballyman Glen cSAC (000713)			Bray Head cSAC (000714)			Buckroney-Brittias Dunes&Fen cSAC (000729)			Carriggower Bog cSAC (000716)			Deputy's Pass Nature Reserve cSAC (000707)			Glen of the Downs cSAC (000719)			Holdenstown Bog cSAC (001757)			Knocksink Wood cSAC (000725)			Magherabeg Dunes cSAC (001766)			Avoidance / Mitigation Measures		Residual Impacts	
	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Policies/Objectives Contained in Guidelines	Other Instruments											
	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative				
Chapter 14 Energy and Communications																															
Strategy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
Wind Energy Objectives	WE1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	See section 2.4 of main report	See section 2.5 of main report	None
	WE2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			None
	WE4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			None

Table 1 (C) Sites within 15km of the plan area

Policy/Objective found to have the potential to affect Natura 2000 sites. (Full wording is set out in Sect. 8 of the Environmental Report)	Blackstairs Mountains cSAC (00770)			Glenasmole Valley cSAC (001209)			Kilpatrick Sandhills cSAC (001742)			North Bull Island SPA (004006)			North Dublin Bay cSAC (000206)			Pollardstown Fen cSAC (000396)			Red Bog, Kildare cSAC (000397)			River Barrow And River Nore cSAC (002162)			Rye Water Valley/Carlton cSAC (001398)			South Dublin Bay cSAC (000210)			South Dublin Bay&River Tolka SPA (004024)			Avoidance / Mitigation Measures		Residual Impacts
	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Potential Impacts	Policies/Objectives/Contained in Guidelines	Other Instruments								
	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative	Direct	Indirect	Cumulative						
Chapter 14 Energy and Communications																																				
Strategy		x	x		x	x		x	x	x		x	x		x	x		x	x		x	x		x	x		x	x		x	x					
Wind Energy Objectives	WE1	x	x		x	x		x	x	x		x	x		x	x		x	x		x	x		x	x		x	x		x	x		See section 2.4 of main report		None	
	WE2	x	x		x	x		x	x	x		x	x		x	x		x	x		x	x		x	x		x	x		x	x		See section 2.5 of main report		None	
	WE4	x	x		x	x		x	x	x		x	x		x	x		x	x		x	x		x	x		x	x		x	x				None	

Appendix B

SACs within County Wicklow and within 15km of the plan area

Ballyman Glen cSAC (Site Code 000713): Ballyman Glen is situated approximately 3 km north of Enniskerry. It is orientated in an east-west direction with a stream running through the centre. The presence of alkaline fen and of petrifying spring/seepage areas on the site is particularly notable, as these habitats are listed, the latter with priority status, on Annex I of the EU Habitats Directive.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Petrifying springs with tufa formation (Cratoneurion); Alkaline fens.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Bray Head cSAC (Site Code 000714): This coastal site is situated in the north-east of Co. Wicklow between the towns of Bray and Greystones. Bray Head is of high conservation importance as it has good examples of two habitats (sea cliffs and dry heath) listed on Annex I of the EU Habitats Directive. It also supports a number of rare plant species and has ornithological importance.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Vegetated sea cliffs of the Atlantic and Baltic coasts; European dry heaths
2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Buckroneys-Brittias Dunes and Fen cSAC (Site Code 000729): This site is a complex of coastal habitats located about 10 km south of Wicklow Town. It comprises two main sand dune systems, Brittias Bay and Buckroneys Dunes, connected on the coast by the rocky headland of Mizen Head. Several coastal habitats listed on the EU Habitats Directive, including two priority habitats - fixed dune and decalcified dune heath - are present. Little Tern, a species listed on Annex I of the EU Birds Directive, has bred or attempted to breed at Buckroneys strand in recent years.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Annual vegetation of drift lines; Perennial vegetation of stony banks; Mediterranean salt meadows (*Juncetalia maritimi*); Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Atlantic decalcified fixed dunes (*Calluno-Ulicetalia*); Dunes with *Salix repens* ssp. *argentea* (*Salix arenariae*); Humid dune slacks; Alkaline fens
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Carriggower Bog cSAC (Site Code 000716): Carriggower Bog is situated on Calary plateau at the eastern edge of the Wicklow Mountains. The site is an area of wet bog and poor fen, flanked by the Vartry River on the south-western side. This site is a candidate SAC selected for transition mire, a habitat listed on Annex I of the EU Habitats Directive.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Transition mires and quaking bogs.

2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Deputy's Pass Nature Reserve cSAC (Site Code 000717): Deputy's Pass woodland is located on the northern spur of the Deputy's Pass near Glenealy, Co. Wicklow. Deputy's Pass is managed as a Nature Reserve and is part of an internationally important series of Oak woods in County Wicklow (Glendalough, Clara Vale, Ballinacor, amongst others), which are almost certainly natural in origin and which retain much of their original character and species composition.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status:
Old sessile oak woods with Ilex and Blechnum in British Isles
2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Glen of the Downs cSAC (Site Code 000719): This site is a semi-natural Oak wood situated within an impressive glacial overflow channel. It is located on the Dublin-Wexford road about 7 km south of Bray, Co. Wicklow. The site supports Oak woodland of a type that is listed on Annex II of the EU Habitats Directive.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status:
Old sessile oak woods with Ilex and Blechnum in British Isles.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Holdenstown Bog cSAC (Site Code 001757): Holdenstown bog is situated about 3 km south-east of Baltinglass, Co. Wicklow. It is a small raised bog surrounded by transition mire which has developed in a kettle hole. Holdenstown Bog is a candidate SAC selected for transition mire, a habitat listed on Annex I of the E.U. Habitats Directive. Holdenstown Bog is of conservation importance as an intact example of transition mire, a habitat listed on Annex I of the E.U. Habitats Directive, and for a range of plant species typical of incipient raised bog development.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status:
Transition mires and quaking bogs.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Knocksink Wood cSAC (Site Code 000725): Knocksink Wood is situated in the valley of the Glencullen River north-west of Enniskerry. The importance of this site lies in the diversity of woodland habitats which occur. The presence of rare or threatened plants and invertebrates adds to the interest. Much of this site has been designated a Statutory Nature Reserve and there is presently an educational centre within the site.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Petrifying springs with tufa formation (Cratoneurion); Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae).
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Magherabeg Dunes cSAC (Site Code 001766): This sand dune system is situated at Ardmore Point, about 5 km south of Wicklow Head. The site is of importance in that it is a fine example of a dune system which is fairly intact and which has a well-developed flora. The lack of easy public access to this site as undoubtedly been responsible in preventing damage and erosion from amenity activities. The presence of wetland vegetation on the site is of additional interest.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Annual vegetation of drift lines; Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Atlantic decalcified fixed dunes (Calluno-Ulicetea); Petrifying springs with tufa formation (Cratoneurion).
2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The Murrough Wetlands cSAC (Site Code 002249): See also of The Murrough SPA (Site Code: 004186): The Murrough is a coastal wetland complex which stretches for 15 km from Ballygannon to north of Wicklow town, and in parts, extends inland for up to 1 km. A shingle ridge stretches the length of the site and carries the mainline Dublin-Wexford railway. The site supports a number of habitats listed on Annex I of the EU Habitats Directive and a number of bird species listed on Annex I of the EU Birds Directive, as well as a wide range of important migratory birds. There are also many rare plants in the site. This site is of importance as it is the largest coastal wetland complex on the east coast of Ireland. Although much affected by drainage, it still contains a wide range of coastal and freshwater habitats including five listed on Annex I of the EU Habitats Directive, some of which contain threatened plants. Areas on the site contain a rich invertebrate fauna, including several rarities. It is an important site for both wintering and breeding birds and supports a wide variety of species listed on Annex I of the EU Birds Directive.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Annual vegetation of drift lines; Perennial vegetation of stony banks; Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Mediterranean salt meadows (*Juncetalia maritimi*); Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Alkaline fens.
2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Vale of Clara (Rathdrum Wood) cSAC (Site Code 000733): The Vale of Clara woodland, situated mostly on the east side of the Avonmore River, immediately north of Rathdrum, between 107 and 244 m above sea level, forms an integral part of one of the most scenic valleys in Wicklow. The Oak woods are good examples of the species-poor *Blechno-Quercetum* vegetation community, a habitat listed on Annex I of the EU Habitats Directive and are best developed in the Cronybyrne area.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Old sessile oak woods with *Ilex* and *Blechnum* in British Isles
2. To maintain the extent, species richness and biodiversity of the entire site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Wicklow Mountains cSAC (Site Code 002122): The vegetation provides examples of the typical upland habitats with heath, blanket bog and upland grassland covering large, relatively undisturbed areas. In all ten habitats listed on Annex I of the EU Habitats Directive are found within the site. Several rare, protected plant and animal species occur. This site is a complex of upland areas in Counties Wicklow and Dublin, flanked by Blessington Reservoir to the west and Vartry Reservoir in the east, Cruagh Mt. in the north and Lybagh Mt. in the south.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea; Natural dystrophic lakes and ponds; Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths; Alpine and Boreal heaths; Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe); Blanket bog; Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*); Calcareous rocky slopes with chasmophytic vegetation; Siliceous rocky slopes with chasmophytic vegetation; Old sessile oak woods with *Ilex* and *Blechnum* in British Isles.
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Lutra lutra*.
3. To maintain the extent, species richness and biodiversity of the entire site.
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Wicklow Reef cSAC (Site Code 002274): Wicklow Reef is of high conservation value as it is the only documented example in Ireland of a biogenic reef. Reefs are listed under Annex I of the EU Habitats Directive. Wicklow Reef is situated just to the north of Wicklow Head on the east coast of County Wicklow.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Reefs.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Slaney River Valley cSAC (Site Code 00781): This site comprises the freshwater stretches of the Slaney as far as the Wicklow Mountains; a number of tributaries the larger of which include the Bann, Boro, Glasha, Clody, Derry, Derreen, Douglas and Carrigower Rivers; the estuary at Ferrycarrig and Wexford Harbour. The site flows through the counties of Wicklow, Wexford and Carlow. Towns along the site but not in it are Baltinglass, Hacketstown, Tinahely, Tullow, Bunclody, Camolin, Enniscorthy and Wexford. The river is up to 100 m wide in places and is tidal at the southern end from Edermine Bridge below Enniscorthy. The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as important numbers of wintering wildfowl including some species listed on Annex I of the EU Birds Directive. The presence of wet and broad-leaved woodlands increases the overall habitat diversity and the occurrence of a number of Red Data Book plant and animal species adds further importance to the Slaney River site.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Old sessile oak woods with *Ilex* and *Blechnum* in British Isles; Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation; Estuaries; Mudflats and sandflats not covered by seawater at low tide
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Alosa fallax*, *Lampetra fluviatilis*, *Lampetra planeri*, *Petromyzon marinus*, *Salmo salar*, *Margaritifera margaritifera*, *Lutra lutra*
3. To maintain the extent, species richness and biodiversity of the entire site
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

cSACs within 15km of the Wicklow County Development Plan Area

Blackstairs Mountains (Site Code 000770): The Blackstairs Mountains are located along the border of the counties Wexford and Carlow, forming a mountain chain that runs in a north-east/south-west direction for approximately 22 km and including six peaks over 520 m. The range has a core of granite, and on the Carlow side, erosion has cut deeply into the dome exposing successive layers of granite, giving a steeply stepped slope. On the east side some overlying Ordovician slates and sandstones are evident. The site is important for extensive areas of dry heath - a habitat listed under Annex I of the E.U. Habitats Directive. The Blackstairs Mountains cSAC is the only example of moorland above 300 m in counties Wexford and Carlow. It includes good examples of dry heath, a habitat that is listed on Annex I of the E.U. Habitats Directive. The plant and animal communities are typical of the uplands and the growth of Heather is particularly profuse, rivaling some of the larger areas of Heather cover in Co. Wicklow.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Glenasmole Valley (Site Code 001209): Glenasmole Valley in south Co. Dublin lies on the edge of the Wicklow uplands, approximately 5 km from Tallaght. The River Dodder flows through the valley and has been impounded here to form two reservoirs which supply water to south Dublin. The site provides excellent habitat for bat species, with at least four species recorded: Pipistrelle, Leisler's, Daubenton's and Brown Long-eared Bat. Otter occurs along the river and reservoirs. These habitats also support Kingfisher, an Annex I species under the EU Birds Directive. Glenasmole Valley contains a high diversity of habitats and plant communities, including three habitats listed on Annex I of the EU Habitats Directive. The presence of four Red Data Book plant species further enhances the value of the site as does the presence of populations of several mammal and bird species of conservation interest.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*); *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Petrifying springs with tufa formation (*Cratoneurion*).
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Kilpatrick Sandhills (Site Code 001742): Kilpatrick Sandhills are located about 8km south of Arklow town, and just south of the Wicklow/Wexford county border. The site is comprised of a mosaic of coastal habitats but primarily a mature sand dune system which extends along 2 km of coastline. The site is ecologically important as a good example of a mature and fairly intact sand dune system which shows the developmental stages of dunes from fore dunes to mature grey dunes. A good diversity of habitats and species are present. Fixed dunes and dune heath are priority habitats under Annex I of the European Habitats Directive.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Annual vegetation of drift lines; Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Atlantic decalcified fixed dunes (*Calluno-Ulicetea*).
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

North Dublin Bay (Site Code 000206): This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. This site is an excellent example of a coastal site with all the main habitats represented. The holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; Salicornia and other annuals colonizing mud and sand; Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Mediterranean salt meadows (*Juncetalia maritimi*); Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Humid dune slacks.
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Petalophyllum ralfsii*.
3. To maintain the extent, species richness and biodiversity of the entire site
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Pollardstown Fen (Site Code 000396): Pollardstown Fen is situated on the northern margin of the Curragh of Kildare, approximately 3km west-north-west of Newbridge. It lies in a shallow depression, running in a north-west/south-east direction. About 40 springs provide a continuous supply of water to the fen. These rise chiefly at its margins, along distinct seepage areas of mineral ground above the fen level. The continual inflow of calcium-rich water from the Curragh, and from the limestone ground to the north, creates waterlogged conditions which lead to peat formation. There are layers of calcareous marl in this peat, reflecting inundation by calcium-rich water. This peat-marl deposit reaches some 6 m at its deepest point and is underlain by clay. Pollardstown fen is the largest spring-fed fen in Ireland and has a well developed flora and fauna. Owing to the rarity of this habitat and the numbers of rare organisms found there, the site is rated as of international importance.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Petrifying springs with tufa formation (*Cratoneurion*); Alkaline fens.
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Vertigo geyeri*, *Vertigo angustior*, *Vertigo moulinsiana*.
3. To maintain the extent, species richness and biodiversity of the entire site.
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Red Bog, Kildare (Site Code 000397): Red Bog, Kildare is located 3 km north of the village of Blessington in east Co. Kildare, close to the boundary with Co. Wicklow. It comprises a wetland complex of lake, fen and bog situated in a hollow between ridges of glacially-deposited material and underlain by rocks of Ordovician age. The site is a candidate SAC selected for transition mire, a habitat listed on Annex I of the E.U. Habitats Directive. Red Bog, Kildare is a site of particular conservation significance, supporting as it does, a good example of a transition mire, a habitat that is listed on Annex I of the E.U. Habitats Directive.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Transition mires and quaking bogs.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

River Barrow and River Nore (Site Code 002162): This site consists of the freshwater stretches of the Barrow/Nore River catchments as far upstream as the Slieve Bloom Mountains and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The site passes through eight counties – Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. The site is a candidate SAC selected for alluvial wet woodlands and petrifying springs, priority habitats on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for old oak woodlands, floating river vegetation, estuary, tidal mudflats, Salicornia mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, all habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive – Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Nore Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter, *Vertigo moulinsiana* and the plant Killarney Fern. Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive respectively. Furthermore it is of high conservation value for the populations of bird species that use it. The occurrence of several Red Data Book plant species including three rare plants in the salt meadows and the population of the hard water form of the Pearl Mussel which is limited to a 10 km stretch of the Nore, add further interest to this site.

Conservation Objectives:

1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Estuaries; Mudflats and sandflats not covered by seawater at low tide; Salicornia and other annuals colonising mud and sand; Atlantic salt meadows (*Glauco-Puccinellietalia maritima*); Mediterranean salt meadows (*Juncetalia maritimi*); Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation; European dry heaths; Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels; Petrifying springs with tufa formation (*Cratoneurion*); Old sessile oak woods with *Ilex* and *Blechnum* in British Isles; Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Vertigo moulinsiana*; *Margaritifera margaritifera*; *Austropotamobius pallipes*; *Petromyzon marinus*; *Lampetra planeri*; *Lampetra fluviatilis*; *Alosa fallax*; *Salmo salar*; *Lutra lutra*; *Trichomanes speciosum*; *Margaritifera durrovensis*
3. To maintain the extent, species richness and biodiversity of the entire site
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Rye Water Valley/Cartron (Site Code 001398): This site is located between Leixlip and Maynooth. It extends along the Rye Water, a tributary of the R. Liffey. Within the woods, Blackcap, Woodcock and Long-eared Owl have been recorded. Little Grebe, Coot, Moorhen, Tufted Duck, Teal and Kingfisher, the latter a species listed on Annex I of the EU Birds Directive, occur on and about the lake. The Rye Water is a spawning ground for Trout and Salmon, and the rare, White-clawed Crayfish (*Austropotamobius pallipes*) has been recorded at Leixlip. The latter two species are listed on Annex II of the EU Habitats Directive. The semi-aquatic snails *Vertigo angustior* and *V. moulinsiana* occur in marsh vegetation near Louisa Bridge; both are rare in Ireland and Europe and are listed on Annex II of the EU Habitats Directive. The scarce Dragonfly, *Orthetrum coerulescens*, has been recorded at Louisa Bridge. The main importance of the site lies in the presence of several rare and threatened plant and animal species, and of a rare habitat, thermal, mineral, petrifying spring. The woods found on Cartron Estate and their birdlife are of additional interest.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Petrifying springs with tufa formation (*Cratoneurion*).
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Vertigo angustior*; *Vertigo moulinsiana*.
3. To maintain the extent, species richness and biodiversity of the entire site.
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

South Dublin Bay (Site Code 000210): This site lies south of the River Liffey and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats, a habitat listed on Annex I of the E.U. Habitats Directive. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion gates. The main channel which drains the area is Cockle Lake. This site is a fine example of a coastal system with extensive sand and mudflats, a habitat listed on Annex I of the E.U. Habitats Directive. South Dublin Bay is also an internationally important bird site.

Conservation Objectives:

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

SPAs within the Wicklow County Development Plan Area

Poulaphouca Reservoir SPA (Site Code 004063): Poulaphouca Reservoir SPA, located in the western foothills of the Wicklow Mountains, was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower. The reservoir covers an area of approximately 20 km² and is the largest inland water body in the Mideast and south-east regions. The principal interest of the site is the Greylag Goose population, which is of international importance. A range of other wildfowl species also occurs, including Whooper Swan, a species that is listed on Annex I of the E.U. Birds Directive. The site is also notable as a winter roost for gulls, especially Lesser Black-backed Gull. Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Greylag Goose, Lesser Black-backed Gull, Wetland & Waterbirds.

The Murrough SPA (Site Code 004186): The Murrough SPA comprises a coastal wetland complex that stretches for 13km from Kilcoole Station, east of Kilcoole village in the north to Wicklow Town in the south, and extends inland for up to 1 km in places. The regular occurrence of Red-throated Diver, Little Egret, Whooper Swan, Greenland White-fronted Goose, Golden Plover, Little Tern, Sandwich Tern, Shorteared Owl and Kingfisher is of note as these species are listed on Annex I of the E.U. Birds Directive. The site also supports a typical diversity of birds associated with reed swamp, including Reed Warbler, a very localised species in Ireland. The site is also of considerable importance for the wide range of coastal and freshwater habitats that it supports, including several that are listed on Annex I of the E.U. Habitats Directive.

Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Little Tern, Red-throated Diver, Greylag Goose, Wigeon, Teal, Black-headed Gull, Herring Gull.

Wicklow Head SPA (Site Code 004127): Wicklow Head is a rocky headland with extensive exposures of mica-schist. It is situated approximately 3km south of Wicklow Town. The Kittiwake and Black Guillemot populations are of National Importance. The site also supports a pair of breeding Peregrines, a species listed on Annex I of the EU Birds Directive. Ravens nest annually on the cliffs, and the heath supports such species as Stonechat, Whitethroat and Linnet. This site is important as it has a well documented seabird colony, with two species having populations of national importance.

Wicklow Mountains SPA (Site Code 004040): This is an extensive upland site, comprising a substantial part of the Wicklow Mountains. This site is of high ornithological importance as it supports very good examples of upland and woodland bird communities. Several of the species which occur are very rare at a national level. Two species, Ring Ouzel and Red Grouse, are Red-listed and their status is of high conservation concern. Also of note is that Merlin and Peregrine are both listed on Annex I of the E.U. Birds Directive.

Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Merlin, Peregrine.

SPAs within 15km of the Wicklow County Development Plan Area

North Bull Island SPA (Site Code 004006): This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Lightbellied Brent Goose, Blacktailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl.

Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Shelduck, Pintail, Shoveler, Oystercatcher, Grey Plover, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Redshank, Turnstone, 20,000 wintering waterbirds, Teal, Ringed Plover, Golden Plover, Sanderling, Curlew, Black-headed Gull, Wetland & Waterbirds.

South Dublin Bay and River Tolka Estuary SPA (Site Code 004024): The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The South Dublin Bay and River Tolka Estuary SPA is of international importance for Light-bellied Brent Goose and of national importance for nine other waterfowl species. As an autumn tern roost, it is also of international importance. Furthermore, the site supports a nationally important colony of Common Tern. All of the tern species using the site are listed on Annex I of the E.U. Birds Directive, as are Bartailed Godwit and Mediterranean Gull.

Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Knot, Sanderling, Bar-tailed Godwit, Redshank, Roseate Tern, Common Tern, Arctic Tern, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Dunlin, Black-headed Gull, Wetland & Waterbirds.

Appendix C

CONSULTATION WITH ENVIRONMENT AUTHORITIES

As part of the Strategic Environmental Assessment process, the preliminary conclusion of the Planning Authority following assessment in terms of SCHEDULE 2A was issued to all of the statutory Strategic Environmental Assessment Environmental Authorities, namely:

- The Environmental Protection Agency
- The Minister for the Environment, Community & Local Government
- The Minister for Agriculture, Food and the Marine
- The Minister for Communications, Energy and Natural Resources
- The Minister for Arts, Heritage and Gaeltacht Affairs
- Any adjoining Planning Authority whose area is continuous to the area of the Planning Authority which prepared the proposed variation

All consultees were afforded not less than 3 weeks to respond, as provided in Section 13K (3)(iii) of the SEA Regulations. As part of this process each consultee was also provided with a copy of the preliminary Appropriate Assessment screening report carried out under Article 6(3) of the EU Habitats Directive for commentary.

Responses were received from:

- The Environmental Protection Agency
- The Department of Agriculture, Food and the Marine
- The Geological Survey of Ireland (through the Department of Communications, Energy and Natural Resources)

None of the responses received made any commentary on the Appropriate Assessment screening report.

Summary of responses received and assessment:

The Environmental Protection Agency
<p>Issues raised:</p> <ol style="list-style-type: none">1. The position with respect to the need for Strategic Environmental Assessment of the variation is noted2. It is welcomed that the proposed variations seek to incorporate the protection of landscape character areas to a greater degree than had been previously done in the County WES3. It is acknowledged that the variation also proposes to include additional requirements for the assessment of noise and shadow flicker for wind energy applications.4. It is matter for Wicklow County Council to determine whether or not any future variations would be likely to have significant affects on the environment5. Attention is drawn to updated SEA Regulations and various SEA related circulars which should be referred and integrated into the plane and SEA process
<p>Assessment:</p> <p>The issues raised are noted and do not require any further assessment or changes to the original conclusions.</p>
The Department of Agriculture, Food and the Marine
<p>Issues raised:</p> <ol style="list-style-type: none">1. The Department of Agriculture, Food and Marine has no submission or observations to make.
<p>Assessment:</p>

No issues raised with respect to Strategic Environmental Assessment determination of the proposed variation. Therefore no changes to the original conclusions come about on foot of this submission.

The Geological Survey of Ireland (GSI)

Issues raised:

1. Receipt of report is acknowledged
2. Information provided on data and service provided by the GSI as well as consultation required on geological issues

Assessment:

No specific issues raised with respect to Strategic Environmental Assessment determination of the proposed variation. Therefore no changes to the original conclusions come about on foot of this submission.